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Adaptation of Disadvantaged Soldiers to Military Service in the I.D.F

Final Technical Report

By

LTC Rami Dovrat, Ph.D.

The Department of Behavioral Science, Israeli Defense Forces
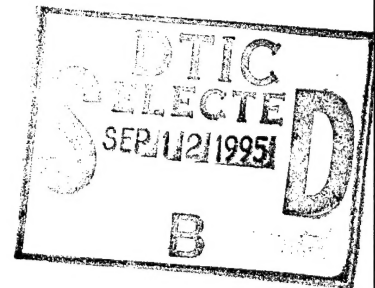
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ABSTRACT

The goal of the present research was to evaluate the adaptation of disadvantaged soldiers to military service in the Israeli Defense Forces (IDF). The adaptation of four groups of disadvantaged soldiers, classified by severity of pre-induction deprivation, was examined in two studies. Each of the disadvantaged groups was compared to a group of non disadvantaged soldiers serving in similar military occupation specialties (MOS), on a wide variety of adjustment to military measures developed during this research effort. In study 1, in which archive data on discharged soldiers was used, the groups were compared on 'negative' adjustment measures representing presence or absence of maladjustment. The results showed that MAKAM soldiers (low on cognitive, motivational and educational selection measures as well as suffering severe pre-induction psychosocial problems) exhibited lower levels of adjustment on most measures. For MAHVA soldiers (low on cognitive, motivational and educational selection measures but having only mild pre-induction psychosocial problems), results were MOS dependent. MAHVA automotive mechanics appeared to be the problematic group, while MAHVA Service and supply personnel (SSP) drivers MOS showed reasonable levels of adjustment. However, higher rates of maladjustment discharge and disciplinary problems were common to all MAHVA MOS. LOWKABA soldiers (low on cognitive and motivational measures, but not on education) did not differ from their non disadvantaged counterparts on all indicators apart from disciplinary problems. KABAG soldiers (soldiers diagnosed as having mild mental health problems) showed good adjustment.

In study 2, currently serving soldiers were compared on a commander's evaluation measure (a 'positive' measures of adjustment) and the soldier's subjective adjustment measure. The results for commander's evaluation showed that, similar to study 1, MAKAM soldiers' adaptation was lower than that of their non-disadvantaged counterparts. MAHVA soldiers (SSP and drivers) and KABAG soldiers did not differ from their non disadvantaged counterparts. LOWKABA soldiers, contrary to study 1, showed lower levels of adaptation. Disadvantaged soldiers did not differ from non disadvantaged soldiers in their subjective adjustment - on some measure they even showed better subjective adjustment. Study 2 also presents data on the relation of some service circumstances and civilian background to adjustment. Results are discussed through two perspectives: the 'cost/benefit' perspective which uses group level differences as the criteria for evaluation, and the 'individual' perspective looking at absolute numbers of soldiers who manage to adapt to military service.

Key words: disadvantaged soldiers - adaptation to military - performance - subjective adjustment.

FORWARD

Since the end of the 1970's the IDF has invested considerable effort in integrating disadvantaged youth in its ranks. The main motivation for these efforts was derived from a widely accepted view regarding the place of the IDF in Israeli society, and the contribution to wider society the organization should make beyond the protection of national security. Within this 'role expansion' view, the integration of disadvantaged youth into military service was considered to be of prime importance. It was (and still is) believed that going through a proper military service can promote this youth's chances of integration into main stream society, and therefore, its inclusion in the ranks of the IDF, accompanied by the suitable rehabilitation programs, is beneficial both to the individual and the society at large.

However, in recent years, mainly in light of budget cuts, the 'role expansion' view in general, and the policy concerning disadvantaged youth in particular, have been criticized. This criticism was based mainly on cost/benefit considerations. Training and maintaining these soldiers is a costly affair and if they do not reach the performance levels typical of other soldiers in the same military occupations it becomes much more costly.

This debate is not unique to the Israeli situation. We feel that in order to make this debate more informed, a basic question should be answered, namely, how well do these soldiers adapt to military service? surely, if their adaptation to military service is successful, then the costs incurred become marginal compared to the benefits, both to the organization and the individual disadvantaged soldier. On the other hand, if large numbers fail to adapt, then the organization and the individual can be harmed: the organization, by using low performing soldiers, and the individual by adding one more failure experience to his record.

This document is a description of a large scale research effort conducted in an attempt to evaluate disadvantaged soldiers adaptation to military service in Israel. Apart from an overall evaluation, an attempt was made to explore the conditions promoting their success in terms of their personal characteristics, the MOS they are assigned to, and the service circumstances they face when they are stationed in their units. The effort also included the development of adaptation measures derived from a multi - dimension concept of adjustment.

It is sincerely hoped that the information generated by this effort of describing the Israeli experience with disadvantaged soldiers, will make the debate, both in Israel and in other countries, more empirically informed. It is also hoped that this information will help to make policy makers' decisions on this issue more beneficial both to military organizations and the disadvantaged youths.

Col. Gadi Amir,

Head of the Department of Behavioral Sciences

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INTRODUCTION

'ROLE EXPANSION' OF MILITARY ORGANIZATIONS

Many military organizations - under a variety of circumstances - fulfill functions which often have nothing to do with national security in the narrow sense of the word. This situation is referred to as 'role expansion'. Many militaries are engaged in a variety of projects for the development of their country's economic and physical infrastructure, telecommunications and health services. Some military organizations are engaged, with varying degrees of intensity, in the operation of educational facilities (Young, 1982).

In the context of the civil-military relations in Israel, the IDF has traditionally been perceived as a military organization the goals of which are not only national defense, but also as an organization fulfilling wider national and social goals, such as immigration absorption, development of agricultural settlements' infrastructure, and support to the civilian educational system (Gal,1986).

DISADVANTAGED YOUTH POLICY IN THE IDF

One of the main social goals that the IDF has traditionally been involved in is the advancement of disadvantaged youth. The idea of using the military for the education of disadvantaged populations is not unique to the IDF. Moscos (1970), Janowitz (1971) and Young (1982) report the contribution of military service in the USA to the acquisition of elementary and high school education. They point out that the military can be an influential socialization agent and can provide the last chance for disadvantaged youth in areas of completion of basic education, acquisition of vocational training, values, motivation, self control, and self esteem.

According to IDF policy statements, the term 'disadvantaged youth' refers to youth in recruiting age that generally lack the skills and abilities necessary to fulfill military functions, due to growing up in a disadvantaged environment (Gal, 1990).

The IDF's policy is to recruit this youth when their selection measures scores are above the bottom 3% (approximately) of the population. The policy goal with regard to this youth is: 'to advance each individual from disadvantaged population and to integrate him in a meaningful military service. This policy

emphasizes the welfare of the individual and the promotion of his ability to function as a productive soldier and civilian' (GHQ-MANPOWER, 1991, p.3).

THE INDIVIDUAL WELFARE AND THE COST/BENEFIT PERSPECTIVES

This policy has not proceeded without debate within the IDF and the Israeli society as a whole. This debate has proceeded through two distinct (but very related) perspectives: the individual welfare perspective and the cost/benefit perspective.

The individual welfare perspective sees the disadvantaged individuals' welfare as the primary consideration that should be taken in account. Those who support the drafting of this youth, assume that going through proper military service is congruent with the individual's welfare. They suggest a few justifications for this assumption (Gal 1990):

a. In the context of Israeli society, where military service is universal, non-recruitment of this youth may be perceived by them and their surrounding environment as the final proof of their being unable to participate in any productive social framework, thus relegating them to a peripheral social position and compromising their future occupational prospects.

b. The military in Israeli society is a central institution, fulfilling a central social necessity (protecting national security). Therefore, proper military service constitutes an important element in the individual's sense of social identity, thus promoting his integration in mainstream society.

c. The egalitarianism of the IDF, despite its hierarchic structure, is reflected in a minimum of social distance: "people used to social inferiority as a result of class affiliation soon discover that the military is different in this respect and derive deep satisfaction and new self confidence from the sense of equality they get in its ranks" (Lissak 1971).

d. The military is capable of running rehabilitation programs going towards compensation for some of the cognitive, educational and behavioral deprivations that the youths had suffered.

e. The acquisition of vocational training, discipline, and work habits inherent in proper military service will promote these youth's occupational position after discharge and promote their adaptation to civilian life.

Their second basic assumption is that the military organization's unique features can ensure bringing the soldier into this desired state of 'proper military service'. Few justifications are suggested for this assumption (Gal 1990):

a. The military organization is a total institution, based on hierarchical orders and decisions. This can be used in assignment to and placement of the disadvantaged youths in meaningful MOS that are necessary for the army and fit their skills.

b. The military organization is a centralized organization with full control and responsibility for its different subsystems and each individual that participates in it. This characteristic enables it to create the conditions for the fulfillment of disadvantaged youth's promotion programs, ensure their implementation throughout the organization and monitor the individual's progress throughout his service.

c. The universal draft enables the military to assign high quality manpower to treating disadvantaged youth. This is, of course, impossible in the civilian environment where market forces create a situation in which high quality manpower is not necessarily drawn to running rehabilitation programs.

The main argument of the opponents to disadvantaged youth inclusion in the military is that the risks to the welfare of this youth, inherent in military service, are too high: due to past deprivation and below threshold adjustment resources, maladjustment to military service is still very probable. This may add to the existing failure experience of this youth and may represent the loss of the last opportunity to integrate them into the mainstream of society.

To make this debate more informed, two questions should be answered: Is proper military service conductive of better adjustment to civilian life? and, How many disadvantaged soldiers do succeed in going through proper military service? Some data on the first question is available from past research and will be presented below. In the present research, an attempt is made to present data regarding the second question.

The economic perspective, which is more typically adopted by policy opponents, emphasizes organizational cost/benefit considerations. Opponents of the policy maintain that from an economic perspective, the IDF should recruit only those soldiers who need minimal effort investment from the organization in order to bring them to a reasonable level of functioning. They claim that, for each MOS, the best available soldiers (in terms of ability) should be assigned. Therefore, unless no other soldiers are available for assignment (which is not the case in the IDF), it is economically wrong to assign disadvantaged soldiers to MOS that can be occupied by higher ability soldiers. If disadvantaged soldiers are drafted and assigned, the 'returns' for the costs of training and maintaining them are lower.

Policy proponents maintain that if disadvantaged soldiers are indeed brought to a similar, or reasonable, levels of functioning, the deficits in cost/benefit terms, are marginal.

Again, this debate could be much more informed by group level data estimating the extent of deviation of disadvantaged soldiers from what can be expected from the next available group of non disadvantaged soldiers. The present research attempts to provide this information.

Before we turn to describing past research on disadvantaged youth in the IDF, the next sections will clarify what is meant by the term disadvantaged youth, and how they are classified and treated in the IDF.

CHARACTERISTICS OF DISADVANTAGED YOUTH

In this section we shall elaborate on the special characteristics of disadvantaged youths in Israel in general. The characteristics are derived from the works of Minkowitz (1969), Eiger (1975) and Frankenstein (1983). Of course, these characteristics do not represent a fixed syndrome and may appear in different combinations and levels of severity. The characteristics are:

1. Low level of education.
2. Low intelligence.
3. Low language proficiency (many times bordering on illiteracy).
4. Low motivation: in the military context, two types of motivation problems are described (Coriat 1990):

    a. Violent: actively struggling against service (through violence, AWOL etc.)

    b. Passive: dependency, lacking initiative and will; although they may have positive attitudes towards service, they are often depressive and home tied.

5. Social background of negligence - poverty, broken families, unemployment, and sometimes criminality.

6. Personality characteristics: low self esteem, low threshold of frustration, problems with authority and responsibility, fatalism, dependence, immaturity, distrust, anxiety, impulsiveness, aggression and suspiciousness.

7. Personal history of lack of stability and failure in learning and work.

8. Lack of identification with social values, lack of commitment, and criminal patterns of behavior.

DISADVANTAGED SOLDIERS IN THE IDF - SUB-POPULATIONS AND PROGRAMS

The IDF's formal classification of soldiers into disadvantaged populations is based on the soldiers' scores on the IDF's various selection instruments (elaboration of these measures is provided in Appendix A). The measures used in this classification are:

1. DAPAR (intelligence measure).

2. Level of Education measure.

3. ZADAC (predictor of success in combat units based on personal history, behavioral and motivational data obtained in a face to face interview).

4. KABA (a weighted composite of the DAPAR, ZADAC and EDUCATION).

5. KAHAS (a measure of pre-induction psycho-social adjustment based on face to face interview with a mental health officer).

6. Mental health, which appears as an indication in the medical fitness profile.

Generally, when speaking of disadvantaged populations in the IDF, we refer to the bottom 25% of the KABA scale (43-46). These soldiers exhibit at list some of the characteristics mentioned earlier. The severity of these characteristics determines assignment to different defined subgroups of disadvantaged populations which undergo differential treatment. These groups are:

1. Intensive enrichment program (MAKAM).

2. Educational enrichment program (MAHVA).

3. "Base guards" program (KABAG).

4. Regular service (which will be termed in this report LOWKABA).

In the following sections a description of the general characteristics of soldiers in each group, the programs they participate in, and the MOS in which they are placed is provided:

MAKAM (INTENSIVE ENRICHMENT PROGRAM):

SOLDIER CHARACTERISTICS

Entrance into this population is based mainly on KAHAS score, in addition to Kaba of 43-46, i.e. it includes soldiers with severe psycho-social adjustment problems (KAHAS of 50). Soldiers with medium KABA may be included in the program if they have KAHAS of 50, but these cases are rare.

PROGRAM CHARACTERISTICS

The first phase of the program includes basic training combined with educational enrichment (see Appendix C for a detailed description of the educational principles of these programs). For those who need to upgrade their education to an 8th grade level, this stage of the program lasts 20 weeks, and for the rest 13 weeks. This phase includes preparation for military service (developing discipline, realistic expectations and a positive self-image, enhancing general human values, solving personal problems and acquisition of knowledge about the military), educational enrichment (basic math, history, English, Hebrew, sex education, family planning etc.).

The second stage includes MOS training courses, most of which take place in IDF's School of Maintenance. There they are trained in one of several MOS. The main MOS are: building maintenance (carpentry and metal-work), automotive mechanics and electricians, technical store keepers (TSK) and heavy mechanical equipment operation (HME) (see detailed description of these MOS in Appendix B). All courses are 17 weeks long, and include more

enrichment classes in addition to professional training. The declared purpose of this training is to enable the soldiers to function effectively in MOS necessary to the IDF, while at the same time to enable them to acquire occupations that have high civilian employment prospects.

After completion of vocational training, soldiers are stationed in different IDF units where they are to practice their MOS. Soldiers are followed closely through the remainder of service by the MAKAM center and a network of special MAKAM officers whose job is to place MAKAM soldiers in the units under their responsibility, to follow their progress and handle problems that arise. Stationing, in most cases, is in rear zone units and units close to the soldier's home. There are several units who are defined as units specializing in MAKAM - that is, units who absorb MAKAM soldiers (in addition to other soldiers) and their officers and NCO's undergo special training in handling this population. MAKAM soldiers may also participate in different educational enrichment courses during their service.

MAHVA (EDUCATION ENRICHMENT PROGRAM):

SOLDIERS CHARACTERISTICS

Participation in this program is determined by low education level (10th grade level or less) in addition to having low KABA. Most of these soldiers have mild psycho-social adjustment problems (40-41 KAHAS). They are not fit for combat service because of either physical or other limitations (e.g. being an only child).

PROGRAM CHARACTERISTICS

The program includes basic training combined with one of several enrichment courses at a special base (see Appendix B for a detailed description of the educational principles of these programs). In these courses, they upgrade their education level, they are "prepared for service", and get vocational training. Today MAHVA soldiers are placed only as service and supply personnel (SSP) or drivers. Over the years 1989-1991 (which are covered in Study 1) they were also trained and placed as automotive mechanics (a brief description of these MOS appears in Appendix B). After completion of the program they are stationed in units of all types, and work in their MOS. Unlike MAKAM soldiers, they are not followed by any special support system.

KABAG (BASE GUARDS PROGRAM)

SOLDIERS CHARACTERISTICS

This program is for soldiers who are regarded as potentially problematic. Generally, they can be described as soldiers with an education level of 10th-11th grade (and therefore not needing educational enrichment), yet they have medium adjustment problems (KAHAS), and a combination of either medium Kaba with some mental health problems or low Kaba without mental health problems. Thus, this group may include soldiers of Kaba higher than 46 (if they have mental health problems).

PROGRAM CHARACTERISTICS

Because of their problems, they are not considered as potential for any vocational course. Therefore, they undergo a short basic training, after which they are stationed as Base Guards (see description of this MOS in Appendix A). Similar to MAHVA soldiers, they are not followed by a special support system.

LOWKABA

SOLDIERS CHARACTERISTICS

This group includes soldiers of low Kaba (43-46) who were not classified into one of the above mentioned groups. Thus these soldiers do not have severe psychosocial problems, and also do not have a very low level of education or mental health problems.

PROGRAM CHARACTERISTICS

These soldier go through regular service, i.e. basic training and vocational training if necessary. However due to their low Kaba, obviously not all MOS are open to them (for example they rarely serve in combat jobs), and the MOS in which MAKAM, MAHVA and KABAG soldiers serve provides a good sample of the MOS they occupy. Some of them may join an enrichment course towards the end of their service so that they have a better chance of finding a job when they leave the military.

In summary, it can be seen that the classification of these soldiers into the different groups, represents a 'hierarchy' of groups organized according to the severity of pre-induction deprivation, as reflected by their personal characteristics measured by IDF's selection measures. The MAKAM group includes soldiers with cognitive, behavioral-motivational, educational and

psychosocial deficits. The MAHAVA group includes soldiers with cognitive, motivational-behavioral and educational deficits, with only mild psychosocial deficits. The LOWKABA group include soldiers with cognitive and motivational behavioral deprivation, and only mild educational and psychosocial deprivation. Finally the deprivation of KABAG soldiers is mainly reflected in mental health problems.

PAST RESEARCH ON DISADVANTAGED POPULATIONS IN THE IDF

A few studies have been conducted by the IDF and civilian research bodies on the subject of the disadvantaged population in the IDF. These studies have taken three main directions. The first relates to the assumption that military service promotes adjustment to civilian life. The second direction undertaken relates to disadvantaged soldiers' adjustment to the military. The third direction has focused on evaluating the effectiveness of the programs themselves. In this kind of research no attempt was made to evaluate overall adjustment of soldiers, but rather to find out if participants in programs are doing better than matching non-participants.

As far as the first direction is concerned, two studies (Gal and Meizels 1993, Katz and Orbach 1990) have attempted to evaluate the adjustment of MAKAM soldiers to civilian life. Katz and Orbach (1990) compared MAKAM soldiers who lasted the full length of service to other low Kaba soldiers and a group of civilians that were not drafted due to below threshold Kaba (41-42). The groups were compared on a series of attitudinal, economic and occupational indicators of adjustment to civil life.

It was found that, compared to the other groups, those not drafted exhibited higher rates of unemployment and non vocational work. They also tended, more than the other groups, to define their economic situation as bad (the authors mention that many members of this group could not be located due to imprisonment, emigration etc.).

Compared to other low Kaba soldiers, MAKAM soldiers who 'survived' the whole service showed some indications of better adjustment to civilian life: higher rates of participation in community activities, lower rates of intentions to emigrate, lower rates of unemployment, and higher rates of vocational and sales occupations. They also showed higher rates of job satisfaction, and higher self-rating of their own economic situation. Attitudes towards military

service were positive for all groups, although attitudes were more positive among the non MAKAM soldiers.

Gal and Meizels (1993) also studied the adjustment of MAKAM soldiers to civilian life after discharge. In this research, 56 MAKAM soldiers (who completed full service) and 175 other low Kaba soldiers were interviewed six-months after discharge and three-years after discharge. The groups were interviewed regarding a number of attitudes towards various issues and were compared on a series of personality measures and socio-occupational variables (not identical to those of the Katz and Orbach study).

No differences were found regarding attitudes towards the IDF and the State of Israel (which were positive in general), and towards life in Israel. No differences were found regarding attitudes towards their military service and satisfaction from service (which were generally positive). No differences were also found regarding personality variables such as well-being, self esteem, and sense of support from family. Only regarding self efficacy were ex-MAKAM soldiers lower.

After three-years of civilian life, no differences were found in unemployment rates, satisfaction from work, and a general feeling that 'one has found his place in life'.

Results of this study are incongruent with results of the first one in the fact that in the first study MAKAM soldiers exhibited a slightly more positive pattern of adjustment. However, the comparison groups were not identical across the two studies. This notwithstanding, the results of these two studies do show that MAKAM 'survivors' are at least not less adjusted than other disadvantaged soldiers to civilian life - although they do have a lower opening position (their overall Kaba data are lower). This has led the authors of these two studies to conclude that this lack of differences reflects a success of the MAKAM program. It should also be remembered that these results are true for MAKAM 'survivors', and may not reflect the results for those MAKAM soldiers who did not complete full service.

As far as the second direction is concerned, an attempt was made to evaluate MAKAM soldiers' adjustment to military service in two studies (Katz 1991, Katz and Orbach 1990).

In the previously reported Katz and Orbach study (1990), MAKAM soldiers were compared to other low Kaba soldiers on a series of adjustment indicators available from archive data.

Overall, it was found that higher rates of MAKAM soldiers, compared to other low Kaba soldiers, were discharged prematurely. On the bright side, MAKAM soldiers who did 'survive' the full length of service did not differ on number of disciplinary incidents and higher rates of MAKAM 'survivors' served in 'meaningful' occupations (i.e., MOS that require training).

The second study (Katz 1991) used commander evaluation forms in order to evaluate MAKAM soldiers serving in IDF Central Command. The study did not use a comparison group. It was found that most of the soldiers were evaluated positively by their commanders in the fields of discipline, motivation proficiency and social adjustment. In addition, more than half of the soldiers served in meaningful MOS, two thirds served under regular conditions of service, and three quarters of the soldiers were recommended to stay in the unit. However most of the soldiers were treated by military social welfare personnel.

The findings of these two studies seem to be quite optimistic. However, it should be remembered that in the first study, the fact that MAKAM 'survivors' did not exhibit higher rates of disciplinary incidents may be due to the fact that involvement in disciplinary incidents serves as one of the main criteria for early discharge. In addition, the fact that more MAKAM soldiers serve in 'meaningful' MOS is, as the authors mention, more a reflection of MAKAM policy of placing soldiers in these MOS exclusively, than an attribute reflecting the soldiers' adjustment. A more appropriate measure would have been rates of survival in the MOS they were designated to serve in.

In the second study, the fact that no comparison group was available limits the possibility of interpreting the positive commander's evaluation as reflecting good adjustment rather than as a leniency effect.

Two studies (Amit and Carmeli 1981, Amit and Carmeli 1982) have attempted to evaluate the influence of participation in an early version of the Education Enrichment Program on soldiers' adjustment. At that time, soldiers who participated in this program had much lower education than today (less than seven-years compared to 10-11 years today). In addition, unlike the current program, it did not include basic training and was carried out after the soldier has gone through basic training.

In the study, 150 of these soldiers were compared to a group of soldiers with exactly the same characteristics (i.e., low Kaba and low education) who, for unknown reasons, did not participate in the course. The soldiers were compared after 1 year of service. The first study found that the participants of the course had lower early discharge rates, less desertion and jail terms and less lowering of physical fitness profiles. No advantage was found in holding combat occupations and number of short AWOL. It seems, therefore, that participation in the project somewhat decreased the expression of mal-adaptation.

The second study also compared the participants to a similar group of non-participants. On the one hand, the percentage of early discharge within the first year was lower in the participants group, the amount of jail terms in the first year of service was also less (this is partly due to longer period of courses) and the percentage of lowering the physical fitness profiles was slightly less. On the other hand, the percentage of soldiers in combat occupations at the end of the first year was lower for the course participants. No significant differences were found between the groups in the number of AWOL.

It seems that there was some advantage to the participants group, mostly in the beginning of the service, and the gap gradually lessened as service progressed. It is hard to tell what part of this advantage is due to the longer duration of courses. It should also be mentioned that, as the authors noted, results are qualified by the possibility of systematic differences between participants and non-participants. The latter group were supposed to participate but for unknown reasons did not. The results can reflect pre-existing differences between the groups and not the impact of participation.

Overall, it seems that some evidence does exist, supporting the assumption relating to the relation of military service to adaptation to civilian life. However, it is felt that findings from the studies, concerning the adaptation of disadvantaged soldiers to military service, although important, are yet far from clarifying the picture.

First, the studies mainly concentrated on the MAKAM group. When comparisons were made, they were compared to an undifferentiated low Kaba group. No attempt was made to systematically study the adjustment of all disadvantaged groups within a comprehensive framework.

Second, the choice of 'adjustment to the military' indicators that were available from archive data was limited, and focused mainly on disciplinary aspects of adjustment to the military. Less attention was directed to other indicators available from archive data, such as 'survival' in designated MOS, unit stability and measures of effective service time (i.e. length of uninterrupted service in MOS).

Third, the question of a soldier's level of functioning while serving in a given MOS cannot be answered by available archive data in its present form in the IDF. This can be done, to some extent, through the commander's evaluation. However, in the one study that did use this form of data collection, interpretation of results was difficult due to lack of any sort of comparison group which can provide a frame of reference.

Fourth, when soldiers were compared to a comparison group, this was with other disadvantaged soldiers (with low Kaba). It is believed that a more suitable way to evaluate adjustment of these soldiers (as indeed adjustment of any soldier) should be done by comparison with a general norm prevalent for the same MOS in the IDF, in order to estimate the extent to which they deviate from this norm (if indeed they do).

THE PRESENT RESEARCH

The primary purpose of the present research is to evaluate the disadvantaged soldiers' adjustment to military service in the different MOS they occupy.

The research is not aimed, and indeed not designed, to evaluate the IDF's specific intervention programs for these populations, but rather to describe the current state of integration of disadvantaged soldiers in the military. In this research an attempt is made to address those problems that made data from past research efforts inconclusive.

First, in the research, all identified groups of disadvantaged populations are included (MAKAM,MAHVA, KABAG, and other LOWKABA soldiers).

Second, in the present research, an attempt is made to develop adjustment measures that are based on an adjustment concept not limited to expressions of maladjustment in its disciplinary form, but rather a multidimensional concept of adjustment which includes multiple indicators as well as the subjective adjustment of the soldiers.

Third, in line with the information required by the 'cost/benefit' perspective, the interpretation of adjustment indicators data is based mainly on comparison of each disadvantaged group to the prevalent norm of higher Kaba non-disadvantaged soldiers in similar MOS. These soldiers are mostly medium Kaba soldiers, representing the 'next best' Kaba group available for assignment to these MOS. In this way, adaptation is evaluated on the basis of the extent of deviation from this norm (norm referenced measurement). However, when group level differences are obtained, an attempt is made to estimate, the proportion of soldiers reaching satisfactory standard on the indicator. This information is in line with that required by the 'individual welfare' perspective.

The design used in this research also enables us to evaluate differential adjustment of disadvantaged soldiers in different MOS and to compare the different disadvantaged groups. This is done in order to estimate the strengths and weaknesses of each of these groups separately, while taking into account the MOS they serve in.

Finally, apart from MOS and pre-induction personal characteristics, an attempt is made to explore some more of the conditions, in terms of service circumstances and personal background, in which disadvantaged soldiers have better or worse chances of success. Although the research design limits this attempt to a correlational exploration, it is hoped that some light will be shed on these conditions.

In the following sections we shall present the adaptation concept used in the present research, the conditions hypothesized to be related to disadvantaged soldier's adaptation and an overview of research design.

THE ADJUSTMENT TO MILITARY CONCEPT

The concept of adaptation is a relatively complex concept and has several definitions. These definitions usually include an emphasis on the ability of a person to adjust to various life situations, to cope with stresses and to function effectively according to requirements (Minkowitz 1969, Lazarus 1969, Scott and Scott 1984).

Coriat (1991), in his literature review of the adjustment literature in general and adjustment to military in particular, mentions four central distinctions which should be made between existing measures of adjustment.

INTERNAL PROCESSES Vs BEHAVIORAL PROCESSES

General experimental psychology, which deals with adaptation, usually emphasizes intra-personal processes, including emotional reactions to crisis and stress situations, coping processes, defense mechanisms and different aspects related to mental health. However, most studies which were done in military contexts emphasize external behavioral expressions. In some cases behavioral expressions such as suicide attempts and AWOLs, were used both as operational definition of lack of adaptation, and also as symptoms which reflect deeper processes.

OPERATIONAL FUNCTIONING Vs SUBJECTIVE FEELINGS

Considering the previous distinction, one can differentiate between two levels for evaluating adaptation. One can find expressions of adaptation on the operational functioning level or the subjective feelings level. Most studies relate to either one of these levels, and only few integrate both. Studies based on archive data usually used the functional definition of adaptation (such as the number of AWOLs or the rank after three years of service), while other studies usually use subjective measures (such as satisfaction, motivation, etc.)

NEGATIVE Vs POSITIVE EXPRESSIONS

Most research on adaptation relates to negative expressions more than to positive ones, with an emphasis on problematic behavior. It seems that it is easier to define mal-adaptation than adaptation, and it is easier to find operational expressions of mal-adaptation. A similar trend is found in most intervention programs which invest more thought and resources in decreasing mal-adaptation than increasing adaptation. Studies related to subjective feelings are more balanced between negative aspects (such as lack of satisfaction) and positive aspects (such as high morale). It is evident that "good" and "bad" soldier's characteristics are not necessarily opposites. Therefore, it is necessary to take into consideration both the negative and the positive expressions.

ADAPTATION Vs SUCCESS

The concepts "Adaptation" and "Success" are used interchangeably very often, and expressions of success are used as measures of adaptation. From the conceptual point of view, the two are different. The concept of adaptation is usually used in a passive manner. That is, a person who adapts himself to a

given situation is a person who behaves according to the requirements of the situation. Therefore one can deviate from adaptation only in the direction of mal-adaptation. In contrast, success is a more active and symmetrical concept - one can succeed or fail. For example, one can compare the outstanding soldier who not only adapts to situations, but also shows special success (in measures such as ranks or grades in courses), and the mediocre soldier who does not advance in ranks, but nevertheless can be seen as adaptive. Still, in the military system, the measures of adaptation and success are close. Adaptation is a necessary though not sufficient condition for success in the military service. Therefore it is possible to use success as an indirect measure of adaptation but not vice versa.

Thus, it is clear that the adjustment concept is a multi-dimensional concept, and any comprehensive measurement of adjustment to the military should include multiple indicators that cover the different distinctions mentioned above. In addition to the above-mentioned distinctions, Scott and Scott (1984) claim that adaptation cannot be conceptualized as a general functioning level of the individual, but rather we should consider the individual as relating to few sub-environments such as work environment, social environment etc. Following this approach, it is clear that adaptation to the military cannot be estimated as level of professional functioning or discipline functioning alone, but should also take into account the relation of soldiers with commanders, peers, and the military organization in general.

Based on these considerations, measures reflecting four main aspects of functioning were developed: technical proficiency and job knowledge, social adjustment and leadership, discipline and overall adjustment. In addition, a measure of soldier's subjective adjustment was developed. A full description of the measures and their development will be presented in the method sections of each of the two studies comprising the present research.

The measures developed include both subjective adjustment and operational functioning indicators. They also include negative expressions of adjustment (e.g., discipline problems, unit instability and early discharge due to maladjustment), the lack of which indicates the absence of failure to adjust but does not provide information on how successful the soldier is. Therefore, positive indicators of adjustment are also included (e.g. MOS proficiency, social adjustment, effort and leadership) which are not obtained through archive data, but rather through the commander's evaluation and do tell us

how successful the soldier is. Finally as has been mentioned, the indicators represent different aspects of functioning.

Due to methodological considerations, no attempt is made in the present research to combine these multiple indicators into a single adjustment model. The measures developed could be collected only from two different populations of soldiers - soldiers who are discharged at the time of data collection and soldiers who are currently in service. Archive indicators such as early discharge and MOS survival could be collected only after service is completed, while the data collected from commanders (such as level of MOS proficiency and effort and leadership) and soldiers (subjective adjustment indicators) can only be collected while the soldier is still in service. These methodological limitations make it impossible to test a comprehensive multi-dimensional adjustment model which requires that all data be collected on one sample.

Therefore this research was conducted by two separate studies: Study 1 ('historic' sample) was conducted on a sample soldiers discharged at the time of data collection, and Study 2 ('current' sample) which was conducted on a sample of soldiers which were still in compulsory service when the data was collected.

ADJUSTMENT PROMOTING OR INHIBITING FACTORS

Apart from describing the adjustment of disadvantaged soldiers per-se, we were interested in exploring a set of conditions, besides MOS and personal characteristics, which can promote or inhibit the disadvantaged soldiers' chances of adjustment. These conditions relate to service circumstances and features of the soldiers civilian environment.

The rationale for inclusion of these variables is based both on theoretical grounds (as derived from the special attributes of disadvantaged soldiers as described in previous sections) and practical grounds (factors that can be translated into assignment and selection policy if found to be of importance). The rational for inclusion of these factors as well as their hypothesized effects are described in the following sections.

JOB, SUB-UNIT AND UNIT DEMANDS

Disadvantaged youths were previously described as having a low coping ability, low self efficacy and a low threshold of frustration. This raises the question as to how demanding and challenging the circumstances which the soldier faces in the military should be. It seems that demanding circumstances may be beyond the soldier's coping capability and could lead to failure.

Therefore, it may be expected that job characteristics providing lighter demands (e.g. low workload, high routines of job, close supervision, and routine work hours), may lead to better adjustment.

It is also expected that when demands made upon the subunit in which the soldier serves (low workload, low severity of discipline, good physical conditions and work in routine hours) may lead to better adjustment.

The same can be said for features of the bases in which the soldiers serve: serving in an open base, rear zone and close to an urban center represent easier demands from soldiers serving in these bases and can enhance adjustment.

PROBLEMS AT HOME, CONDITIONS OF SERVICE AND MOS CIVILIAN EMPLOYMENT PROSPECTS

Many of the disadvantaged soldiers come from a civilian background of low income, unemployment, large families and broken homes. This may inhibit their capacity to cope with demands of military service due to preoccupation with domestic problems and the need to assist and support the family financially.

Therefore, it is expected that those soldiers with more problems at home will be the less adapted.

For the same reasons, when service conditions (for example, high rate of leaves, serving close to home, no extra duties, and receiving extra concessions) permits the soldiers to be more available at home, better adjustment can be expected.

On a different note, part of the considerations which led the MAKAM center to place soldiers in the MOS they occupy is that due to their low socioeconomic status, MOS with high civilian employment prospects (i.e. which may be a vehicle of social mobility after service) may provide high motivation for the disadvantaged soldiers. Therefore, it is expected that when soldiers will

perceive their MOS as promoting their occupational prospects after discharge adjustment will be greater.

CIVILIAN ENVIRONMENT SUPPORT AND MANPOWER ENVIRONMENT QUALITY IN UNIT

The disadvantaged youths are described as having low autonomy and high dependence. Therefore, these soldiers seem especially prone to the influence of their social environment, both within the unit and in their civilian surroundings.

For these reasons, it is possible that soldiers whose civilian environment is more supportive of service and has a positive history of relations with the military will display better adjustment.

In addition, a higher quality manpower environment in the soldier's unit may provide good role models and provide positive influence and, therefore may enhance the soldiers' adjustment.

OVERVIEW OF THE RESEARCH

The present research consists of two studies. In Study 1, the 'historic' study, each of the disadvantaged groups (MAKAM, MAHVA, KABAG and LOWKABA) were compared on 'negative' indicators of adjustment (such as early discharge, disciplinary incidents and designated MOS dropout) to a norm group of non-disadvantaged soldiers in the same MOS, and to each other. As mentioned, the general norm group is comprised mainly of soldiers with the next best Kaba available for assignment to these MOS (medium Kaba).

The indicators used in Study 1 reflect the presence or absence of maladjustment. Thus, data from this study can shed some light on the extent to which failure to adjust is common among the soldiers. However, this data does not enable us to evaluate how 'good' or successful the soldier is. In other words, it is possible that a soldier does not display these negative indicators of maladjustment, yet performs poorly in terms of proficiency, discipline, social adjustment etc.

In Study 2, conducted on a sample of currently serving soldiers, each disadvantaged group was compared to a general norm group and to the other disadvantaged groups, on 'positive' indicators of adjustment using

commander's evaluations. This study enables us to tell not only 'how bad' is the soldier but 'how good' he is.

Additionaly, in **Study 2**, subjective adjustment measures were also included in order to evaluate the soldier's satisfaction, attitudes and identification with different aspects of the service.

Finally, in Study 2, factors that can effect a disadvantaged soldier's adaptation were explored.

In both studies, comparisons are MOS oriented. Therefore, adjustment indicators were examined for each MOS by group combination, and groups were compared on similar MOS. This is done for two reasons. First, from a methodological point of view, it was necessary to provide comparison between groups who serve under similar circumstances (the meaning of adjustment, especially in its positive form, may be different for different MOS due to differences in requirements expected from the soldier's, and the criteria that may be used to evaluate them). Second, from a practical point of view, it was done in order to evaluate the extent in which each of the groups is successful in the different MOS.

STUDY 1

Study 1 examines the adaptation of disadvantaged soldiers to military service in different MOS through the use of what Coriat (1990) termed 'negative indicators of adjustment'. These indicators are derived from archive data describing the soldiers' full length of service. They mainly reflect presence or absence of adjustment difficulties or failure to adapt.

The measures developed for this study were chosen based on results of a pilot study in which a group of manpower experts from different disciplines described the dimensions which, in their views, comprise the concept of 'proper' military service. This concept was defined as service not reflecting maladjustment on the part of the soldier.

The obtained profile of the soldier going through 'proper service' that was obtained included: goes through the full length of service without maladjustment discharge, enters service in the MOS he was assigned to, survives most of his service in the MOS he was assigned to, spends most of his time practicing his MOS, involved in no more than minor discipline incidents and does not exhibit unit instability (moving between too many units).

Following this conceptualization, the nine measures used in this study were developed[1]. These measures include both separate reflections of each dimension and measures tapping some combinations of these dimensions (they are described in detail in the method section):

1. Maladjustment discharge.

2. Entrance to designated MOS.

3. 'Complete survival' in designated MOS (completing full length of service in designated MOS).

4. Effective service in designated MOS ratio (the proportion of time spent by the soldier practicing his designated MOS out of the time he could potentially be practicing it).

5. MOS instability (number of MOS during service).

6. Number of discipline incidents.

7. Unit instability (number of units the soldier was stationed in through service).

8. Effective service in all MOS ratio (the proportion of time spent by the soldier practicing any MOS).

9. 'Decent service measure' (a measure which identifies soldiers who fulfill all the above mentioned conditions of proper service).

METHOD

SAMPLE

The sample of Study 1 included 1114 soldiers. All soldiers were drafted between the beginning of 1989 and the end of 1991. The population from which the sample was drawn consisted of 5 population groups: the four disadvantaged groups (MAKAM, MAHVA, KABAG, LOW KABA) and one general norm group of Kaba of above 46 (which will be termed MEDKABA). The soldiers were sampled from eight designated MOS (SSP ,drivers, technical store keepers (TSK), building maintenance, automotive mechanics, automotive electricians, guards, and heavy mechanical equipment operators (HME).

Designated MOS was defined as the MOS to which the soldier was designated to serve in when he was drafted. MAKAM's soldier's designated MOS are determined only after these soldiers complete their basic training and therefore, the MAKAM soldiers in the sample are only those who completed this training and were designated to an MOS.

Sufficient N's were not available for all MOS due to the differential placement policy for MAKAM KABAG and MAHVA. Table 1 presents the MOS*GROUP design of the study and the N's which were sampled for each cell.

Table 1
Number of subjects by group and MOS

	Makam	Kabag	Mahva	Low Kaba	Med Kaba
TSK	51			46	69
Building maintenance	34			27	21
HME	47			46	54
Automotive Electricians	44			52	50
Automotive Mechanics	52		33	56	42
SSP	37		50	48	49
Drivers			51	51	52
Guards		52			
Whole Sample	265	52	134	326	337

As can be seen in the table, the MAKAM MOS are: service and supply personnel (SSP), technical store keepers (TSK), building maintenance, automotive mechanics, automotive electricians, and heavy mechanical equipment operators (HME). The MAHVA MOS are drivers, SSP, and automotive mechanics. The KABAG MOS was guards. LOW KABA and MEDKABA in sufficient N's could not be found for the guards MOS. Therefore, no general norm comparison group is available for this MOS.

Sampling was conducted for each of the group by MOS cells separately. A random sample using the last digit of service number was drawn from the population comprising each cell. The sampling was aimed at reaching an n of around 50 where possible, lower n's are due to low sampling space.

The total samples for each population do not represent the exact proportions of MOS in each of our five population groups (indeed, for LOWKABA and MEDKABA, they obviously do not even contain all MOS in which these soldiers are placed).

SAMPLE REPRESENTATION

In order to verify that each of these samples represents the population from which it was drawn, a series of two way ANOVA's was conducted for each MOS, where one independent variable was sample Vs population and the other was group membership. This ANOVA was conducted for each of the selection measures described in the introduction (Kaba, Dapar, Kahas, Zadac, Education). The search was for group by sample interaction: if no such interaction was obtained, it could be safely concluded that samples of each MOS by group cell did not differ from the population of this cell.

Results showed that, for all ANOVAs no main effect for sample, or sample by group interactions were obtained. Therefore, it can be concluded that each sample of each cell provides a good representation of the population of the cell.

PROCEDURE

For each subject, a full printed personal file was extracted. The file included data on units in which he was stationed, training periods, disciplinary incidents (AWOL, detention and imprisonment), medical profile, and MOS records.

In an early stage of the research, a data extraction form was designed. (See Appendix D for details on the form structure.) This form was to be used by research assistants in order to summarize personal file data and bring it to a form suitable for the research purposes. The files were randomly distributed between the five research assistants. Each research assistant had participated in a three-day training period in which he/she was familiarized with the different service courses typical for each population group, instructed on how to make sense of the personal file and how to fill out the data extraction form. After completing successfully 25 forms on their own, the research assistants were qualified to proceed independently in filling the forms. Each of the forms were later inspected by a senior assistant before data was entered into the computers.

MEASURES

The archive measures selected for use in this study were[2]:

1. MALADJUSTMENT DISCHARGE: In the IDF, soldiers exhibiting extreme maladjustment are discharged prematurely, either through a special committee or through a mental health indication. Soldiers are brought before the committee mainly in cases of recurring disciplinary incidents or when their commanders believe that they are not suited for service for other reason. Thus, early discharge for maladjustment reasons represents very extreme cases of maladjustment. The maladjustment variable was coded as 1 when an early maladjustment discharge was evident, and 0 when either the soldier finished service properly or was prematurely discharged for a reason which does not reflect maladjustment (3%).

2. ENTRANCE TO DESIGNATED MOS: This measure represents failure in training courses (either basic training or MOS training). It shows whether the soldier completed training for an MOS (if training is required) and stationed in a unit with this MOS (scored as 0) or failed to be stationed in a unit with designated MOS (scored as 1).

3. COMPLETE DESIGNATED MOS SURVIVAL: This measure shows whether the soldier survived in his designated MOS through full service. On this measure, soldiers who were not prematurely discharged, entered their designated MOS and completed full service in designated or higher MOS were scored as 1 and soldiers who did not enter, were discharged prematurely or did not survive full service in designated MOS and moved to an equal or lower MOS were scored as 0.

In order to determine whether an MOS was higher, equal or lower than another MOS, a hierarchy of MOS was defined in the following order: 1. combat MOS; 2. technical MOS requiring special training (within these, the hierarchy was defined by length of training); 3. Technical MOS not requiring special training; 4. Administrative MOS requiring training; 4. administrative MOS not requiring any training.

The complete survival measure, as the term suggests, reflects a dichotomous definition of MOS survival. Additional MOS survival measures were computed in order to obtain continuous data reflecting the length of survival in designated MOS:

4. EFFECTIVE SERVICE IN DESIGNATED MOS RATIO: This measure reflects length of actual effective service in designated MOS divided by the potential length of effective service in designated MOS. The term 'length of effective service' refers to the sum of periods of time in which the soldier was stationed in a unit practicing his MOS. These periods do not include periods of training, disciplinary incidents (AWOLs, detentions, etc.) and other periods not spent in the unit.

The term 'potential length of service' refers to the time period beginning after MOS training is completed and ending when the soldier is supposed to be discharged. Military courses in which the soldier participates after he was first stationed are deducted from this period.

$$\textit{designated MOS ratio} = \frac{\textit{days of effective service}}{\textit{(potential service in MOS)} - \textit{(sum of training periods)}}$$

This measure of effective service in designated MOS was preferred over the actual length of time served in designated MOS since the latter may be discriminating against MAKAM and MAHVA soldiers.

MAKAM and MAHVA soldiers undergo a longer period of training before being stationed with an MOS and during service. For this reason, differences in sheer length of effective service may be due to longer training periods and not failure to adjust to MOS. Therefore, the more lenient 'effective service in designated MOS ratio' was computed, offsetting the differences in training periods.

The MOS survival measures described above reflect mainly adaptation to the designated MOS. A more global measure of MOS adaptation is looking at the sum of MOS which the soldier has occupied throughout his service:

5. MOS INSTABILITY: The sum of MOS which the soldier passed through during his service. If the soldier changed MOS within the main line of his MOS, it did not count as an MOS change.(For example, if he switched from a truck driver to a semi trailer-driver, it did not count as an MOS change. However, if he switched from a truck driver to a general worker it did.) In addition, if the soldier moved to a higher MOS it did also not count as an MOS change.

6. NUMBER OF DISCIPLINARY INCIDENTS: measures the disciplinary aspects of the soldier's adaptation through the sum of disciplinary incidents in which the soldier was involved. Discipline incidents include absence without leave (in the IDF up to 14 days of AWOL), desertion (over 14 days of AWOL), detentions and imprisonment. The incidents were summed up in a way that detentions and imprisonments which were a result of a specific AWOL were not counted. (E.g., if the soldier deserted and was imprisoned for this desertion it was counted as one disciplinary incident.)

7. EFFECTIVE SERVICE IN ALL MOS RATIO: was computed as the length of effective service in all MOS divided by potential effective service time. This potential was calculated as the period of time between the end of training for designated MOS less all periods of training during service, either in preparation for a new MOS or other training periods. Similar to the designated MOS ratio, this measure is more lenient with MAKAM and MAHVA soldiers.

8. UNIT INSTABILITY: was coded by research assistants as number of units in which the soldier was stationed with any MOS for at least three weeks. These units did not include training depots, hospitalization, prisons etc.

9. 'DECENT SERVICE': This measure represents an attempt to construct a comprehensive measure which represents 'normal' or 'proper' service expected from IDF soldiers belonging to the sort of populations studied in the present research. This measure does not represent perfect or successful service but rather a service not reflecting any special adjustment problems. It was computed as a combination of some of the indicators mentioned above.

This measure separated the soldiers into two groups: the first, the 'decent service' group, included soldiers who completed full service, entered their designated MOS, lasted in this MOS up to at least the last six months of service, were not involved in more than one disciplinary incident and did not move between more than two units. The other group includes soldiers who did not fulfill at least one of these conditions.

The specific cut-off points on each indicator comprising this measure (e.g., two units as the cut-off point of unit instability) were suggested by the above mentioned group of manpower experts.

RESULTS

OVERVIEW OF STATISTICAL ANALYSIS

Because of the non-factorial research design, our analysis model consists of comparing each disadvantaged group to a comparison group of soldiers in the same MOS on the nine adjustment indicators. This is done using a GROUP by MOS two way analysis of variance model. Thus, each section of the results will present the data of comparisons pertaining to each of the disadvantaged groups. MAKAM and MAHVA will also be compared to a LOWKABA comparison group.

The search in these comparisons is for a group main effect, or a group by MOS interaction. In the presence of group main effect with no interaction we conclude that differences between groups are stable across all MOS. In the latter case, which is more informative, we can estimate whether disadvantaged groups in a certain MOS show better adjustment than in another MOS (when the differences between disadvantaged soldiers and other soldiers in a specific MOS are smaller than differences in other MOS).

Most of the statistical analysis was carried out by one- or two-way ANOVAs, using the General Linear Models program in the SAS package. However, some of the adjustment indicators were dichotomous variables, more suitable for loglinear analysis. Consultation with the literature suggested that when responses are split relatively evenly between categories (no more than 25/75%), either ANOVA or logit analysis are appropriate and the results of logit analysis and ANOVAs are quite similar (Tabachnick and Fidell 1989).

To be on the safe side, all ANOVAs pertaining to dichotomous variables were also repeated using the SAS CATMOD procedure. For only one variable, entrance to designated MOS, results of the CATMOD procedure failed to replicate those of the GLM procedure. Therefore, for coherence of presentation considerations, results for all indicators (apart from entrance to designated MOS) are presented in F terms. Results for the entrance to designated MOS variable are presented in CHI SQUARE terms.

Post hoc analysis of main effects was done using Tukey's Studentized Range Tests, recommended for use in this situation of unequal n's in cells. Post-hoc analysis of interaction effects was done using a simple effects procedure. All post hoc analysis interpretations reported in the results section in the text are based on a $p < 0.05$ significance level.

SELECTION MEASURES STATISTICS

Detailed means of each sub-sample on IDF's selection measures are presented and discussed in Appendix A2.

Overall, these results reflect no more than the IDF disadvantaged classification and placement policy presented in the introduction. This policy creates a hierarchy of disadvantaged groups on the selection variables whereby MAKAM have the lowest scores followed by MAHVA, followed by LOWKABA. KABAG have higher scores than the rest of the disadvantaged groups, apart from where Zadac is concerned. Needless to say, all groups, on all variables, are significantly lower than MEDKABA.

It can also be seen in Appendix A2 that soldiers in each MOS are not exactly similar in quality data (e.g. MEDKABA SSP have lower Kaba than HIGH KABA TSK). A requirement is made that the differences between a disadvantaged group in each MOS and its comparison group will be constant. Otherwise, smaller differences on an adjustment indicator for a certain MOS may be a result of smaller differences in KABA and not smaller differences in the dependent variable in question. In order to test this requirement, a series of two way ANOVAs of group by MOS was conducted for each set of MOS on selection instruments scores. The results of this series of ANOVAs are also presented in appendix A2.

Overall, it can be seen that differences between MEDKABA SSP and disadvantaged groups SSP are slightly smaller in terms of KABA and Dapar (due to lower quality of MEDKABA SSP), and slightly greater than disadvantaged groups for TSKs (because of higher quality MEDKABA TSKs).

However, it should be noted that the differences between differences in quality variables are very small (one or two levels of each variable). Therefore, it can hardly be assumed that such mild differences can be responsible for differences in the differences in the adjustment variables.

CORRELATIONS BETWEEN MEASURES

Table 2 presents the correlations among the adjustment measures used in the present study. The table shows, that maladjustment discharge has considerable correlations with complete survival, effective service in designated MOS ratio and effective service in all MOS ratio.

This is, of course, not surprising in light of the fact that the soldiers discharged prematurely obviously served shorter time, this fact reflected in lower scores on the two effective service ratios. For this reason analyses concerning these three variables will be repeated and presented in the results section also for soldiers who completed full service.

The rest of the measure show mostly medium to low correlations indicating that their inclusion does not create an information redundancy.

Table 2
Correlations between adjustment indicators

	Maladju- stment discharge	Non entrance to designated MOS	Complete survival	Designated MOS ratio	All MOS ratio	MOS instability	Discipl- inary incidents	Unit instability	Decent service
Maladjustment discharge	1.00								
Non entrance to designated MOS	0.12	1.00							
Complete survival	-0.54	-0.35	1.00						
Designated MOS ratio	-0.51	0.03	0.71	1.00					
All MOS ratio	-0.70	0.02	0.37	0.72	1.00				
MOS instability	0.03 ns	0.28	-0.65	-0.46	0.08 ns	1.00			
Disciplinary incidents	0.36	0.12	-0.26	-0.41	-0.45	0.17	1.00		
Unit instability	0.00 ns	-0.12	-0.10	-0.25	-0.16	-0.16	0.21	1.00	
Decent service	-0.33	-0.22	0.63	0.52	0.38	-0.41	-0.51	-0.32	1.00

MAKAM COMPARISONS

A series of Two-way ANOVAs was conducted in which MAKAM soldiers were compared to MEDKABA and to LOWKABA soldiers in similar MOS on each of the nine adjustment indicators. Thus, in each ANOVA one independent variable was group (MAKAM Vs MEDKABA or MAKAM Vs LOWKABA) and the other was MOS (SSP,TSK, building maintenance, automotive mechanics, automotive electricians and HME). Table 3 presents group means and standard deviations for each indicator, as well as ANOVA data for group main effects and group by MOS interactions for the MAKAM Vs MEDKABA comparison. TABLE 4 presents the same data for the MAKAM Vs LOWKABA comparison. Means and standard deviations for each group by MOS cell are presented in Tables 1-9 in Appendix E).

The tables shows that MAKAM soldiers were significantly lower than both MEDKABA and LOWKABA on all adjustment indicators apart from entrance to designated MOS.

Thus, one quarter of MAKAM soldiers served a 'decent' service, compared to more than half of the MEDKABA soldiers and 42% of LOWKABA soldiers. One quarter of the MAKAM soldiers were discharged prematurely for maladjustment (compared to approximately a tenth of MADKABA and LOWKABA soldiers).

They were involved, on average, more in disciplinary incidents than both MED- and LOWKABA soldiers (in percentage terms 48% of MAKAM soldiers were either not involved or were involved in one discipline incident compared to 75% of MAEDKABA soldiers and 60% of MEDKABA counterparts).

MAKAM soldiers also show more unit instability than MEDKABA counterparts (in percentage terms, 66% of them stayed in one or two units, compared to 84% of MEDKABA soldiers and 80% of LOWKABA soldiers).

As for the indicators relating to utilization of these soldiers in MOS, 42% of MAKAM soldiers completed full service in their designated MOS, compared to approximately two thirds MEDKABA and LOWKABA counterparts. They spent only 53% percent of the time they could have potentially spent practicing their designated MOS (compared to almost 79% and 73% for MEDKABA and LOWKABA counterparts) and 70% of potential time practicing any MOS (compared to 89% and 83% for MEDKABA and LOWKABA counterparts). They also show higher MOS instability than both groups.

Table 3

Means and standard deviations of adjustment indicators for MAKAM and MEDKABA soldiers in similar MOS

	Makam		MedKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Maladjustment discharge	0.26	0.44	0.07	0.25	***38.67	1,536	NS	
Non entrance to designated MOS[1]	0.03	0.13	0.06	0.23	NS[3]		NS	
Complete Survival	0.42	0.49	0.71	0.45	***53.09	1,536	NS	
Effective service in designated MOS ratio[2]	0.53	0.31	0.79	0.32	***88.50	1,505	NS	
MOS instability	1.43	0.86	1.22	0.50	***12.01	1,536	NS	
Number of Disciplinary incidents	2.34	2.44	0.92	1.47	**59.52	1,538	NS	
Effective service in all MOS ratio	0.70	0.33	0.89	0.23	***49.79	1,504	NS	
Unit instability	2.16	1.31	1.73	0.96	***19.26	1,536	*2.65	5,536
Decent service	0.24	0.43	0.54	0.49	***55.54	1,538	NS	

* p<0.05   ** p<0.01   *** p<0.001
[1] Not including SSP where entrance is automatic.
[2] Including only soldiers who entered designated MOS.
[3] Logit analysis.

Table 4

Means and standard deviations of adjustment indicators for MAKAM and LOWKABA soldiers in similar MOS

	Makam		LowKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Maladjustment discharge	0.26	0.44	0.12	0.33	***14.55	1,527	NS	
Non entrance to designated MOS[1]	0.03	0.13	0.07	0.25	NS		NS[3]	
Complete Survival	0.42	0.49	0.67	0.47	***30.18	1,528	NS	
Effective service in designated MOS ratio[2]	0.53	0.31	0.73	0.33	***47.87	1,493	NS	
MOS instability	1.43	0.86	1.25	0.51	**8.17	1,526	NS	
Number of Disciplinary incidents	2.34	2.44	1.64	1.98	***12.95	1,528	NS	
Effective service in all MOS ratio	0.70	0.33	0.83	0.26	***22.59	1,492	NS	
Unit instability	2.16	1.31	1.76	0.97	***15.58	1,528	*2.94	5,492
Decent service	0.24	0.43	0.42	0.49	***19.77	1,528	NS	

* p<0.05   ** p<0.01   *** p<0.001
[1] Not including SSP where entrance is automatic.
[2] Including only soldiers who entered designated MOS.
[3] Logit analysis.

The only group differences that were qualified by a group by MOS interaction were those found for unit instability in the MEDKABA comparison (MAKAM SSPs were the only group who were not significantly higher than MEDKABA counterparts) and for effective service in all MOS in the LOWKABA comparison (MAKAM automotive maintenance soldiers were not lower on this ratio than LOWKABA counterparts).

The results show a much higher early discharge rate for MAKAM soldiers. Since this measure, by its nature, is correlated to complete survival, effective service in designated MOS ratio and effective service in all MOS ratio, it is possible that this difference in maladjustment discharge can explain differences on the other indicators.

In order to see whether differences on these indicators are explained only by differences in early discharge rates, ANOVAs on these variables were repeated for soldiers who completed full service.

The results showed that the differences between the groups held for complete survival ($F(1,432)=33.22, p<0.001$ for the MEDKABA comparison and $F(1,415)=18.92, p<0.001$ for the LOWKABA comparison), and for designated MOS ratio ($F(1,396)=40.65, p<0.001$ when compared to MEDKABA and $F(1,379)=20.78, p<0.001$ when compared to LOWKABA). They also held for MOS instability, but only for the MEDKABA comparison ($F(1,415)= 10.67, p<0.001$). Thus MAKAM soldiers exhibit lower rates of complete survival and lower designated MOS ratio even when only soldiers who completed full service are considered.

In contrast, no significant main effect for group or a group by MOS interaction were obtained for effective service in all MOS. This result indicates that differences between MAKAM and MEDKABA and MAKAM and LOWKABA observed on this variable for all soldiers, do not exist for soldiers discharged on time.

As has been mentioned no group main effect was found for non entrance to designated MOS. It should be remembered that MAKAM soldiers are assigned to an MOS only after completion of training. Therefore, for them, data on non entrance is not very indicative of adjustment.

MAHVA COMPARISONS

A series of Two-way ANOVAs was conducted in which MAHVA soldiers were compared to MEDKABA and to LOWKABA soldiers in similar MOS on each of the nine adjustment indicators. Thus, in each ANOVA one independent variable was group (MAHVA Vs MEDKABA or MAHVA Vs LOWKABA) and the other was MOS (SSP, drivers and automotive mechanics). Table 5 presents group means and standard deviations for each indicator, as well as ANOVA data for group main effects and group by MOS interactions for the MAHVA Vs MEDKABA comparison. Table 6 presents the same data for the MAHVA Vs LOWKABA comparison. Means and standard deviations for each group by MOS cell are presented in tables 1-9 in Appendix E.

Results show a less consistent pattern of differences than the one found for MAKAM soldiers.

MAHVA soldiers, in all MOS, show a significantly higher rate of maladjustment discharge (26%) than their MEDKABA and LOWKABA counterparts (10% and 13% respectively). They also show a much higher rate of non entrance to designated MOS (30% compared to 13% for MEDKABA and 7% for LOWKABA.

Their involvement in disciplinary incidents is higher than that of their MEDKABA counterparts (but not higher than LOWKABA soldiers). Forty six percent of MAHVA soldiers were either not involved or were involved in only one discipline incident compared to 84% of their MEDKABA counterparts and 55% of their LOWKABA counterparts.

For most other indicators, group by MOS interactions were found. The trend of these interactions was one of greater differences between MAHVA automotive mechanics and MEDKABA and LOWKABA counterparts, while smaller or insignificant differences appeared between MAHVA SSP and drivers and MEDKABA and LOWKABA counterparts.

This interaction appeared for 'decent' service (but only for the MEDKABA comparison). It also appeared for complete survival and held when soldiers who were discharged on time were compared ($F(2,202)=16.69, p<0.001$ for the MEDKABA comparison).

It also appeared for designated MOS ratio, and, once again, held for soldiers discharged on time ($F(2,180)=24.99, p<0.001$ for the MEDKABA comparison and ($F(2,191)=14.17, p<0.001$ for the LOWKABA comparison).

Table 5
*Means and standard deviations of adjustment indicators for MAHVA and MEDKABA
soldiers in similar MOS*

	Mahva		MedKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Maladjustment discharge	0.26	0.44	0.10	0.29	***13.71	1,271	NS	
Non entrance to designated MOS[1]	0.30	0.45	0.13	0.33	[3] **X^2= 6.11	1,172	NS	
Complete Survival	0.47	0.50	0.68	0.46	***18.56	1,271	***11.00	2,271
Effective service in designated MOS ratio[2]	0.64	0.35	0.75	0.35	***10.94	1,231	***20.69	2,231
MOS instability	1.38	0.57	1.25	0.49	NS		***5.99	2,271
Number of Disciplinary incidents	2.30	2.23	0.97	1.52	***34.74	1,271	NS	
Effective service in all MOS ratio	0.75	0.31	0.86	0.26	**8.56	1,231	**6.22	2,231
Unit instability	1.64	0.87	1.71	0.96	NS		*3.84	2,268
Decent service	0.29	0.45	0.54	0.50	***22.27	1,271	**5.37	2,271

* p<0.05   ** p<0.01   *** p<0.001
[1] Not including SSP where entrance is automatic.
[2] Including only soldiers who entered designated MOS.
[3] Logit analysis.

Table 6
*Means and standard deviations of adjustment indicators for MAHVA and LOWKABA
soldiers in similar MOS*

	Mahva		LowKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Maladjustment discharge	0.26	0.44	0.13	0.33	***7.93	1,283	NS	
Non entrance to designated MOS[1]	0.30	0.45	0.07	0.26	[3] **X^2= 9.82	1,186	NS	
Complete Survival	0.47	0.50	0.70	0.45	***18.95	1,283	**4.95	2,283
Effective service in designated MOS ratio[2]	0.64	0.35	0.74	0.31	**9.88	1,245	***9.27	2,245
MOS instability	1.38	0.57	1.18	0.45	***12.68	1,282	NS	
Number of Disciplinary incidents	2.30	2.23	1.89	2.14	NS		NS	
Effective service in all MOS ratio	0.75	0.31	0.80	0.27	NS		NS	
Unit instability	1.64	0.87	1.61	0.87	NS		NS	
Decent service	0.29	0.45	0.39	0.49	*4.59	1,271	NS	

* p<0.05   ** p<0.01   *** p<0.001
[1] Not including SSP where entrance is automatic.
[2] Including only soldiers who entered designated MOS.
[3] Logit analysis.

For MOS mobility the above mentioned interaction appeared only for the MEDKABA comparison, and held when only soldiers discharged on time were considered $(F(2,202)=14.34,p<0.001)$. In the LOWKABA comparison this interaction was significant only for soldiers discharged on time $(F(2,209)=5.00,p<0.001)$.

This interaction also appeared for ratio of effective service in all MOS, only in comparison to MEDKABA soldiers. However, it was canceled out when only soldiers discharged on time were compared.

Finally, it appeared for unit instability in the MEDKABA comparison, and again, canceled out for soldiers discharged on time.

LOWKABA COMPARISONS

A series of Two-way ANOVAs was conducted in which LOWKABA soldiers were compared to MEDKABA soldiers in similar MOS on each of the adjustment indicators. Thus, in each ANOVA one independent variable was group (LOWKABA Vs MEDKABA) and the other was MOS (SSP, TSK, building maintenance, automotive mechanics, automotive electricians and HME). Table 7 presents group means and standard deviations for each indicator, as well as ANOVA data for group main effects and group by MOS interactions. Means and standard deviations for each group by MOS cell are presented in Tables 1-9 in Appendix E.

The results show that a significant main effect appeared for the 'decent service' measure, where 41% of LOWKABA soldiers served a decent service compared to 54% of MEDKABA soldiers.

However, looking at each of the indicators, it seems that this difference is due mainly to differences in the involvement in discipline incidents measure. The two groups do not differ in terms of maladjustment discharge, MOS instability, rates of non entrance and unit instability, and the only significant main effect was for rates of number of discipline incidents.

Table 7
Means and standard deviations of adjustment indicators for LOWKABA and MEDKABA soldiers in similar MOS

	LowKaba		MedKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Maladjustment discharge	0.12	0.33	0.08	0.29	NS		NS	
Non entrance to designated MOS[1]	0.08	0.27	0.08	0.33	NS[3]		NS	
Complete Survival	0.68	0.46	0.70	0.46	NS		NS	
Effective service in designated MOS ratio[2]	0.73	0.33	0.78	0.35	NS		NS	
MOS instability	1.24	0.51	1.22	0.49	NS		NS	
Number of Disciplinary incidents	1.75	2.05	1.00	1.52	***23.18	1,649	NS	
Effective service in all MOS ratio	0.82	0.27	0.86	0.26	NS		NS	
Unit instability	1.73	0.95	1.76	0.96	NS		NS	
Decent service	0.41	0.49	0.54	0.49	**9.63	1,649	NS	

* $p<0.05$ ** $p<0.01$ *** $p<0.001$
[1] Not including SSP where entrance is automatic.
[2] Including only soldiers who entered designated MOS.
[3] Logit analysis.

MAKAM VS MAHVA COMPARISON

Only two MOS are common to both MAKAM and MAHVA - SSP and automotive mechanics. These two groups were compared on the adjustment indicators in a series of two way, group by MOS ANOVAs. The results are presented in Table 8. Means and standard deviations for each group by MOS cell are presented in tables 1-9 in Appendix E.

The only significant main effect was found for rates of non entrance to designated MOS, where MAKAM soldiers show a lower rate of non entrance. As has been mentioned, this difference is not very informative since MAKAM soldiers are designated to an MOS only after the completion of training.

Interactions were obtained for the 'decent service' measure, complete survival and designated MOS ratio. In these, the pattern was that MAKAM SSPs were lower than MAHVA SSPs, while MAKAM automotive mechanics were higher than their MAHVA counterparts.

Table 8
Means and standard deviations of adjustment indicators for MAKAM and MAHVA soldiers in similar MOS

	Makam		Mahva		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Maladjustment discharge	0.20	0.40	0.23	0.42	NS		NS	
Non entrance to designated MOS[1]	0.00	0.00	0.18	0.39	[3] **X^2= 4.44	1.83	NS	
Complete Survival	0.46	0.50	0.46	0.50	NS		***14.69	1,168
Effective service in designated MOS ratio[2]	0.54	0.31	0.57	0.35	NS		***19.07	1,154
MOS instability	1.36	0.92	1.37	0.53	NS		NS	
Number of Disciplinary incidents	2.30	2.54	2.13	2.08	NS		NS	
Effective service in all MOS ratio	0.77	0.32	0.75	0.30	NS		NS	
Unit instability	1.83	1.02	1.71	0.82	NS		NS	
Decent service	0.25	0.44	0.30	0.46	NS		**7.10	1,168

* $p<0.05$ ** $p<0.01$ *** $p<0.001$
[1] Not including SSP where entrance is automatic.
[2] Including only soldiers who entered designated MOS.
[3] Logit analysis.

This pattern held when only soldiers discharged on time were considered ($F(1,110)=19.34, p<0.001$ for designated MOS ratio; $F(1,108)=8.69, p<0.001$ for complete survival; $F(1,113)=4.12, p<0.001$ for 'decent service'. This may not come as a surprise in light of the fact that the groups did not differ on maladjustment discharge rates.

KABAG COMPARISONS

As no comparison group was available for the KABAG guards, their adjustment data was interpreted based on comparisons to whole sample means of the rest of the groups. This data is presented in table 9.

As can be seen in the table, results for KABAG soldiers are very encouraging. They do not differ significantly or insignificantly from MEDKABA or LOWKABA soldiers on any adjustment indicator, apart from the decent service measure on which they are higher than MEDKABA soldiers. They are significantly lower than both MAKAM and MAHVA on maladjustment discharge and involvement in disciplinary incidents and they have a significantly better rate of complete designated MOS survival and all MOS ratio than these two groups.

Table 9

Means and standard deviations of adjustment indicators for whole sample

	Makam		Kabag		Mahva		Low Kaba		Med Kaba		F	df
	M	SD	M	SD	M	SD	M	SD	M	SD		
Maladjustment discharge	0.26 a	0.43	0.07 b	0.27	0.26 a	0.44	0.13 b	0.33	0.08 b	0.27	13.05***	4,1105
Non entrance to designated MOS	0.03 b	0.18	0.00 b	0.00	0.19 a	0.39	0.07 b	0.26	0.07 b	0.26	[1] X^2 = 9.61***	4,1100
Complete survival	0.43 c	0.49	0.67 ab	0.47	0.47 bc	0.50	0.68 a	0.46	0.70 a	0.45	18.22***	4,1109
Effective service in Designated MOS ratio	0.53 b	0.31	0.72 a	0.35	0.64 b	0.35	0.73 a	0.33	0.78 a	0.32	22.21***	4,1009
MOS instability	1.42 b	0.86	1.25 ab	0.48	1.38 ab	0.57	1.24 a	0.51	1.22 a	0.50	5.67***	4,1106
Number of disciplinary incidents	2.34 a	2.44	0.96 bc	1.57	2.30 ab	2.23	1.75 b	2.05	1.10 c	1.59	21.26***	4,1099
Effective service in all MOS ratio	0.70 c	0.33	0.83 ab	0.29	0.75 bc	0.31	0.82 ab	0.27	0.86 a	0.25	11.62***	4,1008
Unit instability	2.16 a	1.31	1.47 b	0.57	1.64 b	0.87	1.72 b	0.95	1.76 b	0.99	10.58***	4,1099
Decent service	0.24 c	0.43	0.61 a	0.49	0.29 bc	0.45	0.41 b	0.49	0.53 a	0.49	18.10***	4,1105

*** $p < .001$

Note. Means having different subscripts differ with significance levels ranging from $p < .05$ to $p < .001$ (Tukey's studentized range test)

[1] Logit analysis

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SUMMARY AND DISCUSSION

Results of Study 1, which examined mainly 'negative' indicators of adjustment show differential patterns of adjustment of the disadvantaged groups. Generally speaking, adjustment on the indicators studied is more or less consistent with the severity of pre-induction deprivation of the group members as reflected by IDF's selection measures.

For the MAKAM group, which has the lower pre-induction selection measure scores, results are quite consistent across the board. Apart from a few exceptions, MAKAM soldiers show, on most adjustment indicators, significantly lower adjustment than both LOWKABA and MEDKABA comparison groups.

Thus, in group level terms, MAKAM soldiers' military service is associated with higher rates of adjustment difficulties and failure to adapt than those which can be expected from both other LOWKABA soldiers and the 'next best' group of non disadvantaged soldiers. In most cases, differences are not canceled out even when only 'survivors' are considered. Results cannot be explained by the fact that MAKAM soldiers are directed to more challenging MOS - very few significant MOS by group interactions were obtained, showing that differences are more or less stable across MOS.

However, from the individual point of view, considerable numbers of MAKAM soldiers do go through a reasonable military service - three quarters complete full service, 40% do so in their designated MOS and a quarter of them go through military service without exhibiting ANY special adjustment problem.

As for the MAHVA group, which includes soldiers typified mainly by low education level, findings are more MOS dependent.

While MAHVA soldiers across MOS show higher rates of maladjustment discharge, higher rates of disciplinary problems (than MEDKABA counterparts only) and lower rates of entrance to designated MOS, for the rest of the adjustment indicators, a trend is evident, pointing at special adjustment problems mainly for the automotive mechanics MOS and less for the SSP and driver MOS.

This trend appears for complete survival in designated MOS, ratio of effective time in designated MOS, MOS instability and the decent service measure. All these in comparison to MEDKABA counterparts. It also appeared for effective service in all MOS ratio and unit instability, but was canceled out when only survivors were considered (leaving no group differences in these variables). In fact, on some indicators, MAHVA mechanics were even lower than MAKAM mechanics.

These findings for MAHVA soldiers are more optimistic. MAHVA soldiers, in all MOS, seem more problematic in the disciplinary aspects of service (a common feature of all disadvantaged groups apart from KABAG). However, for most other measures only one problematic MAHVA group emerges - MAHVA mechanics. In light of these results it is not surprising that the MAHVA soldiers ceased to be referred to the automotive mechanics MOS since the beginning of 1992.

As for the other two disadvantaged groups, results are more encouraging. LOWKABA soldiers, in most cases, are not significantly different from MEDKABA soldiers. The only exception is that LOWKABA soldiers are more involved in disciplinary incidents than MEDKABA soldiers and, as a result, are also lower on the 'decent service' measure.

The adjustment of KABAG guards also seems to be very good. These soldiers did not differ on any measure from overall MEDKABA average. In fact, 61% of them go through service without exhibiting any special adjustment problem.

Of course, the data presented in Study 1 depicts the soldiers' adjustment on the necessary but not sufficient criteria of an effective or productive military service. Indeed, the organization does not expect its members only to go through service without interruption. Such uninterrupted service may still not be a very productive service. The data obtained from the adjustment indicators used in Study 1 does not tell us how motivated the soldier is, how well the soldier performs his job, how socially integrated he is with his peers and the quality of his relations with his commanders.

It also does not provide any information on the individual' subjective adjustment to service - whether he is satisfied or dissatisfied with different aspects of service, identifies with his unit and the military or shows signs of alienation to the unit and military.

Study 2 attempts to shed some light on these questions.

NOTES

1. Attempts to use two archive measures reflecting more 'positive' indicators of adjustment were abandoned. The first is vocational training scores and scores on professional advancement tests which were suppose to measure job knowledge. A partial attempt to collect this information was reported in the second annual report. However, records on these scores were very partial, creating too many subjects with missing values to allow statistical analysis. In addition, scoring systems differed between courses and tests not allowing any sort of standardization. These reasons made the data collected on these measures unusable. The second measure was rank promotion. Rank promotion within each MOS was found to be almost entirely explained by length of service before discharge, making it completely redundant.

2. IDF's selection measures, used in sampling the soldiers and verifying sample representation are presented in Appendix A1.

STUDY 2

The basic 'state of adjustment' as used in Study 1 reflected the minimal requirement of the military from its soldiers: being stationed in their units and practicing their MOS. This state was termed in Study 1 as 'effective service period'. Deviations from this state were considered as reflecting adjustment difficulties.

However, as has been mentioned earlier, it is felt that this conceptualization of adjustment is partial. While providing a proper estimate of maladjustment, it does not provide information on differences in soldiers' adjustment during those periods of 'effective service'. In other words, how successful is the soldier at different aspects of functioning while being stationed in a unit practicing his MOS? In Study 2, we attempt to fill this gap by using direct commander evaluations of the soldiers level of functioning during those 'effective' periods.

A second type of information which could not be obtained from the archive data used in study 1, was the extent of the soldier's subjective adjustment. This concept is considered to be an important dimension of the adjustment concept, and is also measured in Study 2.

Finally, an attempt is made to shed light on some of the conditions inherent in the soldier's military environment and civilian background which were hypothesized to enhance his chances of success in military service.

Data in Study 2 was collected from three sources: the soldier himself, his direct commander and the unit's manpower officer.

The subjects of Study 2 were soldiers currently serving in the IDF. This fact posed some technical limitations and the MO composition and structure of comparisons is slightly different than that of Study 1.

METHOD

SAMPLE

The sample was designed to include 5 population groups: the four disadvantaged groups (MAKAM, KABAG, MAHVA and LOW KABA) and one general norm group (MEDKABA). The groups were defined in a similar way to Study 1. Six MOS were studied: SSP, drivers, technical store keepers (TSK), building maintenance, guards and automotive maintenance. The last group includes both automotive mechanics and automotive electricians since n's of currently serving MAKAM soldiers were not large enough to warrant their separation as was done in Study 1. For the same reason no HME group is included, no LOWKABA or MEDKABA building maintenance, and LOWKABA TSK. However, a comparison group of guards (which sampled both low and MEDKABA soldiers serving as guards) was available from 'ordinary' soldiers who were assigned to this MOS during service.

TABLE 10 presents the GROUP by MOS composition.

Table 10
Study 2 - Research design

	Makam	Kabag	Mahva	Low Kaba	Med Kaba
SSP	X		X	X	X
Drivers			X	X	X
TSK	X				X
Building maintenance	X				
Automotive maintenance	X				X
Guards		X			X

The sampling procedure was designed to ensure a sufficient and representative number of subjects in each group by MOS cell. Thus the subjects in each cell are a sample of the population comprising each cell. The soldiers in the sample all served between 1-2 years in the IDF. Total sample size was 1149.

Questionnaires were sent to each of the sampled soldier's direct commander, the soldier's unit manpower officer and to the soldiers themselves.

965 evaluation forms were returned by the commanders (84%). Fifty seven of them were returned unfilled due to various reasons (such as soldier leaving the unit, being discharged from the military, or his length of service in the unit not warranting evaluation) leaving the total of usable questionnaires on 908 (79%).

814 forms were returned by manpower officers (71%). 94 of them were returned unfilled, leaving a total of 720 (63%).

782 forms were returned by the soldiers (68%). 110 of them were empty leaving a total of 672 (58%).

The combined return rates are presented in Table 11. As can be seen, no forms were returned for only 8.8% of the sample. Full set of forms were returned for 35% of the sample.

Table 11
Combined return rates of questionnaires

Returned by	Percent
No return	8.8
Manpower officer only	5.3
Commander only	10.8
Soldier only	4.2
Manpower + Commander only	17.5
Manpower + soldier only	3.8
Commander + soldier only	14.2
Full set	35.4

The actual n's in each cell are presented in table 12. The tables presents the distribution of soldiers in actual MOS (as reported by commander and manpower officer) and not by designated MOS (as it appears in central data bank). Only those cells which included an n large enough to warrant statistical analysis are presented and analyzed in the study. This fact reduced the number of subjects used in the research to 851 with commander data, 673 with manpower officer data and 631 with soldiers data.

Table 12
Number of subjects in each MOS by group cell

		Makam	Kabag	Mahva	Low Kaba	Med Kaba
SSP	M	25		46	42	71
	C	29		56	53	90
	S	17		32	35	67
Drivers	M			37	62	57
	C			49	71	66
	S			34	54	63
TSK	M	36				56
	C	49				70
	S	40				64
Building maintenance	M	28				
	C	37				
	S	19				
Automotive maintenance	M	28			56	59
	C	40			71	79
	S	29			53	62
Guards*	M		33		37	
	C		36		55	
	S		28		34	
Whole sample	M	117	33	83	172	
	C	155	36	105	215	
	S	105	28	66	155	

M= Manpower officer returned
C= Commander returned
S= Soldier returned
* collapsed group of Med- and Low Kaba guards.

SAMPLE REPRESENTATION

The sampling procedure consisted of building a series of samples representing the population of each MOS by group combination. In order to verify that each of these samples indeed represents the population from which it was drawn, a series of two way ANOVAs was conducted for each MOS, where one independent variable was sample Vs population and the other was group. This ANOVA was conducted for each of the selection measures (Kaba, Dapar, Kahas, Zadac, Education).

All ANOVAs showed main effect for group only, and no main effect of sample or a sample by group interaction. The lack of these effects shows that each sample cell properly represents the population from which it was drawn.

PROCEDURE

Three sources of data were used in the present research:

a. Questionnaire administered to each subject's commander.

b. Questionnaire administered to each of the subject's unit manpower officer.

c. Questionnaire administered to each subject.

The questionnaires were delivered by mail. The soldier received the questionnaire directly. The Manpower Officer received his own questionnaire and all the commanders questionnaires relating to soldiers from his unit.

The manpower officer was requested to deliver the commanders questionnaire to the soldiers direct commander. Three weeks later reminder letters were sent to those who had not yet replied.

MEASURES

1. COMMANDER'S EVALUATION: Included items designed to asses various aspects of the soldier's adjustment. Two versions of this scale were pre-tested before the final version was constructed. The first included 21 five-point Likert scale items. This version was pre-tested and yielded an unsatisfactory two factor structure: one which included discipline related items and an unspecified factor. In addition a leniency effect was observed whereby over 70% of the soldiers were rated as 'good' or 'very good'.

Following this, a new version was constructed which included 41 items. The items were selected based on a series of meetings with commanders who supplied an item bank. From this bank a new group of commanders selected the items which seemed most representative of adjustment. The items retained covered the following adjustment concepts:

a. job knowledge.

b. technical proficiency.

c. effort/leadership and social adjustment.

d. discipline.

e. overall rating of soldiers performance.

The items included a nine-point scale in which the commander was asked to evaluate the soldier, compared to other soldiers doing a similar job. (1 was

much less than most other soldiers doing the same job, and 9 was much more than most other soldiers doing the same job). In addition a 'not-relevant' category was added (0).

The new version was administered to a pilot sample of 150 commanders. Factor analysis yielded 4 factors:

a. Proficiency: included items relating to job knowledge, technical proficiency and effort.

b. Discipline: included items relating to violence, disobedience, AWOL's.

c. Social adjustment: cooperation with others, leadership and social relations.

d. Overall evaluations: general items relating to general appraisal, suitability for career service, and general contribution to the unit.

The nine point scale eliminated the leniency effect, and most soldiers were concentrated around the mid points of the scale.

The version used in the main research was shortened to a 24 item instrument which included items with highest factor loadings (see Appendix F1).

Factor analysis of the final version used in the research yielded 4 factors accounting for 83% of variance (factor loadings are presented in Appendix F2).

a. Proficiency factor: included 14 items relating to job knowledge, proficiency and effort. In other words it reflects the soldiers job related behavior. This factor also included the general items referring to the soldiers contribution to the unit and recommendation for career service. The items in this factor were converted into z-scores and their mean serves as the PROFICIENCY INDEX (Cronbach alpha=.98).

b. Social adjustment factor: included five items that describe the social adjustment of the soldiers and the general item in which the commander was asked to give a general impression of the soldier. The items in this factor were converted into z-scores and their mean serves as the SOCIAL ADJUSTMENT INDEX (Cronbach alpha=.95).

c. Discipline factor: contains five items reflecting the soldiers discipline level such as :obedience, respect to commander and honesty. (DISCIPLINE INDEX, Cronbach alpha= .96).

d. A single item relating to soldiers violent behaviors (AGGRESION ITEM).

In addition, a composite index was computed from the means of the four measures (COMMANDER'S COMPOSITE INDEX).Thus, five measures of Commander's evaluation were used: Proficiency Index, Social Adjustment Index, Discipline Index, Aggression Item and the Composite Index.

To obtain some measure of validity, correlations between the different indexes and disciplinary incidents ratio (number of disciplinary incidents divided by length of service) were computed. All correlations ranged between .30 and .38, and, as expected, the discipline index showing the highest correlation with disciplinary incidents.

2. SOLDIER'S SUBJECTIVE ADJUSTMENT: included items relating to general satisfaction with service and different aspects of it, such as relations with the commander, the job, the unit, social relations, and attitudes towards military service. A 43 item early version of the questionnaire was pre-tested. Four factors were obtained:

    a.   The commander.

    b.   The job.

    c.   The unit.

    d.   The military.

For the main research, this version was shortened to a 23 item version, eliminating items with low factor loadings. The version used in the research (see Appendix G1 for translation of items) yielded six factors accounting for 66% of variance.

The factors are (see appendix G2 for factor loading):

    a.   Commander factor: containing items reflecting satisfaction and quality of relationships with the direct commander. The items in this factor were converted into z-scores and their mean serves as the RELATIONS WITH COMMANDER INDEX (Cronbach alpha=.90).

    b.   Conditions of service: items reflecting satisfaction with various aspects of service conditions: such as the rate of leaves, the way the soldiers personal problems are taken care of. It is interesting to note that the item "general satisfaction with unit" loaded on this factor. (CONDITIONS OF SERVICE INDEX Cronbach alpha=.84)

c. Satisfaction with MOS: Including items such as the amount of responsibility in MOS, the contribution to the military of the MOS, and the amount of interest in MOS. (SATISFACTION WITH MOS INDEX, Cronbach alpha=.81).

d. Effort attitudes: including items such as the importance of doing well on the job and agreement to items such as "only suckers try hard in the military". (EFFORT ATTITUDE INDEX Cronbach alpha=.72)

e. Satisfaction with unit: feelings of pride, belonging, and social adjustment in unit. (UNIT SATISFACTION INDEX Cronbach alpha=.79).

f. Military service attitudes: Two items reflecting willingness to serve in the military. (SERVICE INDEX, Cronbach alpha=.73).

In addition to these six indexes, the single item referring general satisfaction with service was taken separately. This item originally loaded on the conditions of service factor (but loaded on the other factors as well). Finally a Composite index was computed as the mean of all subjective adjustment indexes (SUBJECTIVE COMPOSITE INDEX). Thus, in total eight measures were used to assess soldiers' subjective adjustment: Relations With Commander Index, Conditions of Service Index, Satisfaction With MOS Index, Effort Attitudes Index, Unit Satisfaction Index, Service Index, General Satisfaction Item and Subjective Composite Index.

3. JOB CHARACTERISTICS: five items in commanders questionnaire tapping characteristics of the job the soldier is doing (See Appendix H1):

a. Work load (item 13).

b. Tightness of supervision (item 14).

c. The extent to which the job is considered routine (item 15).

d. Work in irregular hours (item 16).

e. Need to supervise others (item 17).

4. SUB UNIT HARDSHIPS: four items in manpower officer's questionnaire regarding the different demands upon soldiers serving in the sub-unit (for exact phrasing and item distribution see Appendix I1):

a. Workload (item 15).

b. Work in irregular hours (item 17).

c. Severity of discipline (item 19).

d. Physical conditions (item 22).

Each of these items was recoded as 1 when the specific condition was demanding (e.g., when the sub-unit works in high overload, in irregular hours, has severe discipline, and uncomfortable physical conditions). The item was recoded as 0 when the specific condition was not demanding. An index called 'sub-unit hardships' was calculated for each subject by summing the items up. High score on this index represents tougher demands.

5. MANPOWER ENVIRONMENT: five items relating to features of the manpower surrounding the soldier in his sub-unit and unit as a whole were included in manpower officer's questionnaire. (for exact phrasing and item distribution see Appendix I1):

    a. Quality of manpower in whole unit (item 13).

    b. Amount of discipline problems in unit (item 15).

    c. Quality of manpower in sub-unit (item 18).

    d. Amount of discipline problems in sub-unit (item 20).

    e. Social cohesion in sub-unit (item 21).

An index was computed from the mean of these items (Cronbach alpha=.70). Higher scores on this index represent better manpower environment.

6. BASE FEATURES: Three items regarding the following features of the unit's base (for exact phrasing and item distribution see Appendix I1):

    a. Open/close (item 9).

    b. Front zone/rear zone (item 10).

    c. Distance from an urban center (item 11).

Item 11 was recoded to two categories (1=far 2=close). An index was computed from these three feature by adding them up, creating a 3-6 scale (6=open,rear zone, close 3=closed,front zone, far).

7. CONDITIONS OF SERVICE: four items in commanders questionnaire regarding the existence of the following service conditions (for exact phrasing and item distribution see Appendix J1):

    a. Extra duties (item 18).

    b. Closeness to home (item 19).

    c. Rate of leaves (item 20).

    d. Extra concessions (item 21).

Each item was recoded into two categories. The one that represents easy conditions (duties less than once a month; serving close to home; not staying nights at all or week on week off leaves; and getting extra concessions more than others) and scored as 0. The other category represents harder conditions of service and was scored as 1.

In addition, a cumulative index was built summing up the four items so that a low score represents easy conditions.

8. CIVILIAN EMPLOYMENT PROSPECTS: two items in the soldier's questionnaire regarding the soldier's view as to the employment prospects his MOS offers in the civilian world (for exact phrasing and item distribution see Appendix K1):

    a. Will to do a similar job in the civilian world (item 25).

    b. Belief that MOS will help get a job after discharge (item 26).

The multiplication of the two items created the 'Civilian Prospects Index'.

9. MILITARY-CIVILIAN ENVIRONMENT RELATIONS: seven items tapping family and friend's experiences with the military, and family and friends support for the subject's military service (for exact phrasing and item distribution see Appendix L1):

    a. Fathers service (item 37).

    b. Brothers not drafted (item 38).

    c. Brothers premature release (item 39).

    d. Brothers serving in combat units (item 40).

    e. Friends not drafted (item 41).

    f. Family's attitudes towards service (item 42).

    g. Friends attitudes towards service (item 43).

Each of these items were recoded into two categories: 1 representing negative relations (e.g., not all friends drafted, not all brothers drafted) and 0 representing positive relations (all friends drafted, all brothers drafted). In addition, two environment indexes were computed one adding up all negative relations for soldier who had brothers eligible for service, and one for the whole sample not containing the brothers related items. Low score on this indexes represent positive civilian environment relations with the military.

10. PROBLEMS AT HOME: Six items in soldiers questionnaire regarding economic status of family and problems at home (for exact phrasing and item distribution see Appendix M1):

  a. Problems at home (item 51).

  b. Father's employment (item 52).

  c. Mother's employment (item 53).

  d. general evaluation of family economic condition (item 54).

  e. Crowding in residence (items 55 and 56).

The first two items were transformed into z-scores and their mean served as the 'Problems at Home Index'.

RESULTS

OVERVIEW OF STATISTICAL ANALYSIS

Statistical analysis in Study 2 is mostly similar to that of Study 1. Each group is compared to other groups in similar MOS by means of analysis of variance, searching for a group main effect or MOS by group interactions. Interpretations of interaction effects is based on the simple effects procedure and t's whose probability is less than 0.05.

When relations between different conditions and the adjustment measures are examined, this is done by either looking at differential patterns of correlations for each of the groups, or by means of analyses of variance.

SELECTION MEASURES STATISTICS

As has been mentioned above, at whole group level samples of Study 1 and 2 are not comparable due to different MOS compositions. However, if data from the two studies is to be integrated, the expectation is that at MOS by group sub-sample levels, the selection measures data should be the same across the two studies (e.g., we expect that MAKAM TSK Study 1 selection measure scores will not be different from MAKAM TSK Study 2 data).

This was confirmed using a series of two way ANOVAs in which independent variables were sample (current Vs historic) and group for each MOS separately on each quality variable. The results of this ANOVA are presented in Appendix A3.

The results showed that historic Vs current sample differences in selection measure scores exist mainly for SSP: current SSP have higher scores on the selection variable than historic SSP. The explanation for this may be what SSP in the current sample may include soldiers with higher quality than those required for this MOS. These soldiers ended up in this MOS after dropping from MOS requiring higher quality (such as many medical dropouts from combat units). Contrary to them, SSP soldiers in the historic sample are those who were designated to this MOS because of their low selection measures scores. It may be assumed that those who joined SSP after dropping out from higher MOS are those who raise the overall scores of soldiers in SSP in the current study.

Appendix A3 also presents ANOVA data testing for the stability of differences between the group within each MO. The results show that differences between MEDKABA SSP and disadvantaged groups are slightly greater in terms of Kaba than comparable disadvantaged groups, and Dapar compared to MAKAM and MAHVA). Similar to Study 1, the differences between differences, although significant, are very slight.

CORRELATIONS BETWEEN SUBJECTIVE ADJUSTMENT AND COMMANDERS EVALUATION

Table 13 presents correlations between subjective adjustment indexes and commander's evaluations. At a whole sample level, a correlation of $r=.26$ was found between commanders composite index and soldiers composite index. Correlations of similar magnitude were found between most of both sets of indexes.

Table 13
Correlations between commander's evaluation and subjective adjustment indexes

	Commander composite	Proficiency index	Social adjustment	Discipline index	Aggression item
scomp	.26	.26	.21	.20	-.13
sat	.19	.18	.18	.15	-.18
com	.22	.21	.22	.22	-.06*
mo	.19	.19	.17	.12	-.06*
unit	.21	.21	.18	.17	-.12
cond	.19	.21	.12	.15	-.13
eff	.13	.14	.09	.10	-.10
srv	.16	.18	.12	.09	-.08*

* NS
scomp= composite index
sat= general satisfaction item
com= satisfaction with commander
mo= satisfaction with MOS
unit= satisfaction with unit
cond= satisfaction with conditions of service
eff= effort attitudes
srv= service attitudes

COMMANDER'S EVALUATIONS

In Appendix F3, tables presenting the means and standard deviations for each MOS by group cell on the commander evaluations indexes, and the same data for the whole sample, are presented. These tables show that at whole sample level, MAHVA and MEDKABA are significantly higher then the rest of the groups. In the following sections, each disadvantaged group is compared to soldiers from other groups serving in similar MOS.

MAKAM COMPARISONS

Two way ANOVA for MAKAM MOS, in which groups (MAKAM,MEDKABA) and MOS (SSP, TSK, automotive maintenance) were independent variables and the five commander's index were the dependent variable was conducted. Table 14 presents group means and standard deviations, as well as ANOVA data on group main effects and MOS by group interactions (Group by MOS cell means are presented in Appendix F3).

Table 15 presents the results of a similar analysis comparing MAKAM soldiers to LOWKABA counterparts (automotive maintenance and SSP).

The tables show that results of these comparisons are different for the MEDKABA and LOWKABA comparisons.

Table 14

Means and standard deviations of commander's evaluation indexes for MAKAM and MEDKABA soldiers in similar MOS

	Makam		MedKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Proficiency index	-0.33	0.87	0.18	0.86	25.47***	1,351	NS	
Social adjustment index	-0.20	0.99	0.15	0.90	10.58***	1,351	NS	
Discipline index	-0.25	1.01	0.19	0.85	18.54***	1,348	NS	
Aggression item	-0.04	0.98	0.04	1.03	NS		NS	
Composite index	-0.27	0.84	0.17	0.80	22.59***	1,351	NS	

* p<0.05   ** p<0.01   *** p<0.001

Table 15
*Means and standard deviations of commander's evaluation indexes for MAKAM
and LOWKABA soldiers in similar MOS*

	Makam		LowKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Proficiency index	-0.43	0.92	-0.23	0.91	NS		NS	
Social adjustment index	-0.29	1.00	-0.14	0.98	NS		NS	
Discipline index	-0.38	1.05	-0.20	0.93	NS		NS	
Aggression item	-0.08	1.00	0.02	0.96	NS		NS	
Composite index	-0.38	0.88	-0.20	0.86	NS		NS	

* p<0.05   ** p<0.01   *** p<0.001

For the MEDKABA comparison, group main effects were obtained for all indexes apart from the aggression item. For all these indexes MAKAM soldiers were significantly lower than MEDKABA. No interaction with MOS was found.

Contrary to that, no significant differences were obtained between MAKAM and LOWKABA soldiers in similar MOS.

Thus, MAKAM soldiers in all MOS are rated lower than MEDKABA soldiers on most indexes, but are not different than LOWKABA soldiers. These results are the same across all MOS.

Separate analysis showed that MAKAM building maintenance are not significantly different from the rest of MAKAM MOS.

Thus, consistent group differences appear on most of the commander evaluation indexes. In order to see how many MAKAM soldiers do reach the standard of their norm group, two analyses were carried out.

In the first, the percentage of MAKAM soldiers reaching the average or above average score of MEDKABA counterparts was computed. The results showed that 32% of MAKAM soldiers reached at least the mean MEDKABA level of adjustment, as described in the commander's evaluations.

In the second, the percentage of MAKAM soldiers, who fall within the distribution curve of MEDKABA soldiers, was computed. The results showed that 85% of MAKAM soldiers' scores fall within the 0.05 confidence limits of MEDKABA counterparts mean score.

MAHVA COMPARISONS

Two way ANOVA for MAHVA MOS, in which groups (MAHVA,MEDKABA) and MOS (SSP, drivers) were independent variables and the five commander's indexes were the dependent variable was conducted. Table 16 presents group means and standard deviations, as well as ANOVA data on group main effects and MOS by group interactions (Group by MOS cell means are presented in Appendix F3).

Table 17 presents the results of a similar analysis comparing MAHVA soldiers to LOWKABA counterparts (SSP and drivers).

Table 16
Means and standard deviations of commander's evaluation indexes for MAHVA and MEDKABA soldiers in similar MOS

	Mahva		MedKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Proficiency index	0.20	0.87	0.32	0.76	NS		NS	
Social adjustment index	0.13	0.95	0.32	0.79	NS		NS	
Discipline index	0.07	0.95	0.28	0.83	3.75*	1,249	NS	
Aggression item	-0.08	1.06	0.01	1.05	NS		NS	
Composite index	0.15	0.83	0.31	0.72	NS		NS	

* p<0.05   ** p<0.01   *** p<0.001

Table 17
Means and standard deviations of commander's evaluation indexes for MAHVA and LOWKABA soldiers in similar MOS

	Mahva		LowKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Proficiency index	0.20	0.87	-0.08	0.90	6.18*	1,224	NS	
Social adjustment index	0.13	0.95	-0.13	0.95	4.50*	1.224	NS	
Discipline index	0.07	0.95	-0.14	0.97	NS		NS	
Aggression item	-0.08	1.06	0.04	1.00	NS		NS	
Composite index	0.15	0.83	-0.10	0.85	5.12*	1,224	NS	

* p<0.05   ** p<0.01   *** p<0.001

As can be seen in table 16, MAHVA soldiers are significantly lower than MEDKABA counterparts only on the discipline index, where they are rated as less disciplined. No MOS by group interaction was found.

In contrast, MAHAVA soldiers were significantly higher on proficiency, social adjustment and the composite index than LOWKABA counterparts, again these main effects are not modified by a MOS by group interaction.

Thus, MAHVA soldiers while being rated as slightly less disciplined, do not differ from MEDKABA soldiers on any other index. In contrast, they are rated higher than LOWKABA soldiers on all indexes apart from the discipline and aggression indexes.

LOWKABA COMPARISONS

Two way ANOVA for LOWKABA MOS, in which groups (LOW KABA,MEDKABA) and MOS (SSP,drivers,automotive maintenance) were independent variables and the five commander's index were the dependent variable was conducted. Group means are presented in table 18 (Group by MOS cell means are presented in Appendix F3).

Table 18
Means and standard deviations of commander's evaluation indexes for LOWKABA and MEDKABA soldiers in similar MOS

	LowKaba		MedKaba		Group ME		Group×MOS Int'	
	M	SD	M	SD	F	DF	F	DF
Proficiency index	-0.15	0.89	0.23	0.83	20.42***	1,424	NS	
Social adjustment index	-0.13	0.92	0.23	0.85	17.60***	1,424	NS	
Discipline index	-0.15	0.93	0.21	0.85	17.84***	1,417	NS	
Aggression item	0.02	0.97	0.00	1.05	NS		NS	
Composite index	-0.14	0.83	0.22	0.77	21.55***	1,424	NS	

* p<0.05   ** p<0.01   *** p<0.001

Results show that LOWKABA soldiers are rated significantly lower than their MEDKABA counterparts on all indexes apart from the aggression item.

No MOS by group interaction was found.

Once again, an attempt was made to estimate the percentage of LOWKABA soldiers whose adjustment does not deviate from that typical of their MEDKABA counterparts. The figures are quite similar to those obtained for MAKAM soldiers: 34% of LOWKABA soldiers reach or surpass the average score of MADKABA soldiers and 91% percent fall within the p<0.05 confidence limit of the MADKABA mean.

KABAG COMPARISON

KABAG Guards were compared to the collapsed group of other guards by means of a one way ANOVA (group means are presented in Appendix F3).

No group main effect was found - KABAG guards are not rated as significantly higher or lower on any of the commander evaluations indexes.

MAKAM and MAHVA SSPs

Comparisons between MAKAM and MAHVA soldiers were possible only for the SSP MOS (means can be seen in Appendix F3).

Results show marginally significant differences for the composite index $(F(1,83)=3.42,p=0.06)$, the proficiency index $(F(1,83)=3.83,p=0.05)$ and the discipline index $(F(1,81)=4.16,p=0.04)$. On all these, MAHVA SSPs receive higher rating than MAKAM SSPs.

In summary, the commanders evaluations are quite favorable for MAHVA soldiers and KABAG, and less favorable for MAKAM and LOW KABA. MAHVA soldiers did not differ significantly from MEDKABA soldiers in the same MOS with the exception being that MAHVA soldiers were rated lower on the discipline index. KABAG soldiers also did not differ from their comparison group on any of the indexes.

The picture is less bright for MAKAM soldiers. MAKAM soldiers, in all MAKAM MOS were rated lower than their MEDKABA counterparts (apart from the aggression item). However, they did not differ from LOWKABA counterparts. In addition, for building maintenance where no comparison group was available, commander evaluation means were quite low, and not significantly better than those of the rest of MAKAM groups.

For LOW KABA soldiers the picture is not better than that of MAKAM: LOW KABA were rated lower than MEDKABA on all indexes apart from the aggression item.

SUBJECTIVE ADJUSTMENT

In Appendix G3, tables presenting the means and standard deviations for each MOS by group cell on the subjective adjustment indexes, and the same data for the whole sample, are presented. In the following sections, each disadvantaged group is compared to soldiers from other groups serving in similar MOS.

MAKAM COMPARISONS

Two-way ANOVA for MAKAM MOS, in which groups (MAKAM,MEDKABA) and MOS (SSP, TSK, automotive maintenance) were independent variables and the eight subjective adjustment indexes were the dependent variables was conducted. Results are presented in table 19. Table 20 presents results of a similar analysis where MAKAM soldiers were compared to LOWKABA counterparts (SSP and automotive mechanics). Group by MOS cell means are presented in Appendix G3.

The results show that MAKAM soldiers are more satisfied with MOS, and direct commander than their MEDKABA counterparts. They are also higher than MEDKABA soldiers on the composite index.

Table 19
Means and standard deviations of subjective adjustment indexes for MAKAM and MEDKABA soldiers in similar MOS

	Makam		MedKaba		Group ME		GroupxMOS Int'	
	M	SD	M	SD	F	DF	F	DF
Satisfaction with MOS	0.18	0.76	-0.14	0.79	8.36**	1,272	NS	
Satisfaction with commander	0.14	0.83	-0.09	0.90	5.11*	1,272	NS	
Satisfaction with unit	0.14	0.73	-0.08	0.79	NS		NS	
Satisfaction with conditions of service	0.19	0.73	-0.02	0.80	NS		NS	
Service attitudes	-0.03	0.87	0.00	0.86	NS		NS	
Efforts attitudes	-0.03	0.82	-0.08	0.77	NS		NS	
General satisfaction item	0.14	0.98	-0.06	1.00	NS		NS	
Composite index	0.10	0.54	-0.07	0.63	4.19*	1,272	NS	

* p<0.05   ** p<0.01   *** p<0.001

Table 20

Means and standard deviations of subjective adjustment indexes for MAKAM and
LOWKABA soldiers in similar MOS

	Makam		LowKaba		Group ME		GroupxMOS Int'	
	M	SD	M	SD	F	DF	F	DF
Satisfaction with MOS	0.17	0.84	-0.02	0.78	NS		NS	
Satisfaction with commander	0.11	0.79	-0.18	0.97	4.21*	1,130	NS	
Satisfaction with unit	0.11	0.73	-0.07	0.78	NS		NS	
Satisfaction with conditions of service	0.19	0.73	-0.17	0.86	4.85*	1,130	NS	
Service attitudes	0.04	0.92	-0.10	0.85	NS		NS	
Efforts attitudes	-0.06	0.86	0.10	0.77	NS		NS	
General satisfaction item	0.04	1.08	-0.09	0.99	NS		NS	
Composite index	0.10	0.54	-0.08	0.58	NS		NS	

* p<0.05   ** p<0.01   *** p<0.001

MAKAM soldiers are also more satisfied with direct commander and conditions of service than their LOWKABA counterparts.

For both comparisons results held across MOS.

Separate analysis showed that MAKAM building maintenance are not significantly different from the rest of MAKAM soldiers in other MOS.

MAHVA COMPARISONS

Two-way ANOVA for MAHVA MOS, in which groups (MAHVA,MEDKABA) and MOS (SSP, drivers) were independent variables and the eight subjective adjustment indexes were the dependent variables was conducted. Results are presented in table 21 (group by MOS cell means can be seen in Appendix G3). Results of comparisons with LOWKABA soldiers is presented in table 22.

In the MEDKABA comparison, Significant main effect for groups was obtained only for the satisfaction with occupation index. MAHVA soldiers were more satisfied with occupation than MEDKABA soldiers in similar MOS.

MAHVA soldiers did not differ from LOWKABA soldiers on any of the subjective adjustment indexes.

Table 21
*Means and standard deviations of subjective adjustment indexes for MAHVA and
MEDKABA soldiers in similar MOS*

	Mahva		MedKaba		Group ME		Group×MOS Int'	
	M	**SD**	**M**	**SD**	**F**	**DF**	**F**	**DF**
Satisfaction with MOS	0.22	0.80	-0.08	0.76	6.30*	1,192	NS	
Satisfaction with commander	0.20	0.75	0.16	0.84	NS		NS	
Satisfaction with unit	0.12	0.80	0.03	0.75	NS		NS	
Satisfaction with conditions of service	0.09	0.90	0.05	0.80	NS		NS	
Service attitudes	0.21	0.91	0.00	0.91	NS		NS	
Efforts attitudes	0.12	0.90	-0.02	0.83	NS		NS	
General satisfaction item	0.24	1.04	0.00	0.99	NS		NS	
Composite index	0.13	0.64	0.02	0.61	NS		NS	

* p<0.05   ** p<0.01   *** p<0.001

Table 22
*Means and standard deviations of subjective adjustment indexes for MAHVA and
LOWKABA soldiers in similar MOS*

	Mahva		LowKaba		Group ME		Group×MOS Int'	
	M	**SD**	**M**	**SD**	**F**	**DF**	**F**	**DF**
Satisfaction with MOS	0.22	0.80	0.04	0.72	NS		NS	
Satisfaction with commander	0.20	0.75	-0.06	0.89	NS		NS	
Satisfaction with unit	0.12	0.80	-0.10	0.85	NS		NS	
Satisfaction with conditions of service	0.09	0.90	-0.12	0.92	NS		NS	
Service attitudes	0.02	0.91	-0.06	0.92	NS		NS	
Efforts attitudes	0.12	0.90	0.05	0.83	NS		NS	
General satisfaction item	0.24	1.04	-0.02	1.03	NS		NS	
Composite index	0.13	0.64	-0.04	0.60	NS		NS	

* p<0.05   ** p<0.01   *** p<0.001

LOW KABA COMPARISONS

Two way ANOVA for LOWKABA MOS, in which groups (LOWKABA, MEDKABA) and MOS (SSP, drivers, automotive maintenance) were independent variables and the eight subjective adjustment indexes were the dependent variable was conducted. Results are presented in table 23. No main effects for groups or MOS by group interactions were found. LOWKABA soldiers are no different from MEDKABA counterparts in their subjective adjustment.

Table 23

Means and standard deviations of subjective adjustment indexes for LOWKABA and MEDKABA soldiers in similar MOS

	LowKaba		MedKaba		Group ME		Group×MOS Int'	
	M	**SD**	**M**	**SD**	**F**	**DF**	**F**	**DF**
Satisfaction with MOS	0.07	0.71	-0.01	0.76	NS		NS	
Satisfaction with commander	-0.13	0.94	0.06	0.90	NS		NS	
Satisfaction with unit	-0.08	0.82	0.03	0.74	NS		NS	
Satisfaction with conditions of service	-0.16	0.88	0.02	0.79	NS		NS	
Service attitudes	-0.03	0.90	0.00	0.89	NS		NS	
Efforts attitudes	0.09	0.79	-0.01	0.80	NS		NS	
General satisfaction item	-0.03	1.00	-0.02	0.99	NS		NS	
Composite index	-0.04	0.58	0.01	0.61	NS		NS	

* $p<0.05$ ** $p<0.01$ *** $p<0.001$

KABAG COMPARISONS

Group means for KABAG and other guards are presented in Appendix G3. No significant differences appeared between the groups.

MAKAM and MAHVA SSP

Means of subjective adjustment indexes for MAKAM and MAHVA SSP are presented in Appendix G3. No significant differences between the groups were observed.

In summary, it seems that MAHVA and MAKAM soldiers are more satisfied with their MOS than MEDKABA soldiers in the same MOS. In addition MAKAM soldiers are also more satisfied in general and with their commander than MEDKABA in the same MOS. Other group differences in subjective adjustment were not observed.

JOB CHARACTERISTICS

In the commander questionnaire, items relating to the soldier's job characteristics were included. The items referred to work load, tightness of supervision, routine job, work hours, and need to supervise others.

Appendix H2 presents a description of results of a series of two way ANOVAs in which each of the groups was compared to soldiers from other groups in similar MOS. The purpose of this analysis was to see if the groups differ in the demands made of them while practicing their MOS.

The results of the ANOVAs described in the Appendix can be summarized in the following way: lesser demands are made from MAKAM soldiers than other groups. MAKAM soldiers tend less to supervise others than all other comparable groups. In addition, they work less in irregular hours compared to MEDKABA and MAHVA SSP. MAKAM automotive maintenance and SSP were also less work loaded than their MEDKABA counterparts, although this is not true for MAKAM TSK. MAHVA soldiers work more in irregular hours than MEDKABA, LOW KABA and MAKAM soldiers in equivalent MOS. LOW KABA soldiers are more closely supervised and tend less to supervise others than MEDKABA soldiers. KABAG guards do not differ from other guards in job characteristics.

CORRELATION BETWEEN JOB CHARACTERISTICS AND COMMANDER'S EVALUATION

Table 24 presents the significant correlations between the various job characteristics and commander's evaluation indexes for the whole sample and for each of the groups.

As can be seen, work load and supervision of others have the highest correlations with the composite index ($r=.37$ and $r=.40$ respectively), although being supervised and working in irregular hours are also significantly correlated with the composite index ($r=-.22$ and $.27$ respectively). Routine job is not correlated with the composite index or any other index.

Thus, it can generally be said that when a soldier's job is more demanding he is rated higher by his commander. In other words, soldiers who are under a heavier workload, who are less closely supervised, work more in irregular hours, and supervise other soldiers, are more highly evaluated by their commanders.

Looking at the correlation within each group (see table 24) it seems that MAHVA soldiers' performance is unrelated to any of the job characteristics apart from supervision of others. Contrary to the other groups, they do not show significant correlations between workload (r=.11 ns) and work in irregular hours (r=.08 ns) with the composite commander index.

Table 24

Correlations between job characteristics and commander's evaluations by groups

		Workload	Supervision	Routine	Work hours	Supervision of others
Composite Index	Whole sample	.37*	-.22*	.00	.26*	.40*
	Makam	.42*	-.29*	.00	.32*	.45*
	Kabag	.31*	-.14	-.32*	.00	.33*
	Mahva	.11	-.13	.08	.08	.36*
	Low Kaba	.39*	-.26*	.00	.30*	.38*
	Med Kaba	.40*	-.17	.00	.28*	.37*
Proficiency Index	Whole sample	.38*	-.23*	.00	.28*	.44*
	Makam	.41*	-.30*	.00	.31*	.51*
	Kabag	.38*	-.18	-.30*	.00	.35*
	Mahva	.17	-.16	.00	.11	.38*
	Low Kaba	.39*	-.26*	.00	.30*	.40*
	Med Kaba	.40*	-.19	.00	.30*	.41*
Social Adjustment	Whole sample	.35*	-.17	.00	.23*	.36*
	Makam	.40*	-.26*	.00	.29*	.38*
	Kabag	.27*	.00	-.35*	-.13	.33*
	Mahva	.42*	-.12	.00	.00	.36*
	Low Kaba	.35*	-.20*	.00	.29*	.35*
	Med Kaba	.38*	-.12	.00	.25*	.32*
Discipline	Whole sample	.29*	-.18	.00	.20*	.27*
	Makam	.39*	-.23*	-.09	.29*	.24*
	Kabag	.13	-.10	-.27*	-.15	.25*
	Mahva	.00	-.10	.00	.00	.24*
	Low Kaba	.32*	-.24*	.00	.23*	.25*
	Med Kaba	.34*	-.13	.00	.21*	.21*
Aggression	Whole sample	-.03	-.02	-.04	.01	.05
	Makam	.05	.06	.01	.03	.00
	Kabag	.02	.00	-.01	.02	.00
	Mahva	-.01	.00	-.01	.00	.00
	Low Kaba	.04	.00	.02	.00	.00
	Med Kaba	.00	.01	.00	.00	.03

* $p<0.05$

KABAG soldiers' pattern of correlation is also different from the general pattern. While none of the groups exhibits correlation between job routines and any commander evaluation index, such a correlation does exist among KABAG soldiers (r=-.27 to r=-.35). When work is less routine, KABAG soldiers are rated higher. In addition, KABAG soldiers are not effected by irregular work hours.

MAKAM soldiers exhibited similar, and even somewhat stronger, pattern of correlations to that of LOWKABA and MEDKABA soldiers.

In order to test whether those differential correlations patterns of MAHVA and KABAG soldiers' are a result of the MOS they occupy, a two way ANOVA was conducted testing for interaction effects of job characteristics and group in the MAHVA and KABAG MOS.

Such an interaction was indeed found for MAHVA MOS $(F(5,376)=12.49, p<.001)$. MAHVA soldiers with high vs. low work loads did not differ among themselves (M=.22, M=.13 respectively) while other groups did (MEDKABA high=.59 low=.16; LOW KABA high=.42 low=-.36).

A similar interaction was found for KABAG soldiers in the Guard MOS $(F(3,84)=4.24, p<.001)$ - KABAG guards with high and low frequency of work in irregular hours did not differ in the composite index (M=-. 12,M=-.16 respectively) while other soldiers did (M=.37 M=-.45).

As for routine job, the interaction did not reach significance due to the very low number of subjects in the low routines cell, although means were in the expected direction (no difference among KABAG guards and high difference among other guards).

Thus, it seems that these different patterns among KABAG and MAHVA do result from their group membership and not their MOS.

In summary, the better soldiers, across all groups are, not surprisingly, those who supervise others. For MAHVA soldiers, it was the only job characteristic that was correlated with commander's evaluation.

In the other job characteristics the better soldiers were those whose jobs were more demanding in terms of workload (apart from MAHVA) and work in irregular hours (apart from MAHVA and KABAG). Routine job was only correlated with commanders evaluation among KABAG soldiers.

These results are in contradiction to those expected introduction. Of course, direction of causation cannot be determined: the better soldiers may get the more demanding jobs, or when the jobs are more demanding, the soldiers perform better, or, these dimensions may serve to judge their performance.

CORRELATIONS BETWEEN JOB CHARACTERISTICS AND SUBJECTIVE ADJUSTMENT

At the whole sample level, very low correlations, if any, were obtained between job characteristics and subjective adjustment. The only correlation worthy of mentioning is that between satisfaction with occupation index and workload (r=.20), thus the more the soldiers were loaded with work the more they were satisfied with their MOS.

Table 25 presents the significant correlations for each group separately. Looking at these correlation, it seems that the correlation between work load and satisfaction with MOS holds for all the groups apart from MAHVA. Two way ANOVA (group X workload on satisfaction with occupation) confirmed this impression: (F(1,536)=6.71, p<.0001). For MAHVA soldiers with high and low workload no differences were found on satisfaction with occupation (Mhigh=0.11 Mlow=0.21) while other groups did differ (MAKAM Mhigh=0.66 Mlow=0.08; LOW KABA Mhigh=0.26, Mlow=-. 03; HIGH KABA Mhigh=.09 Mlow=-.24) (KABAG were not included in this analysis due to low n).

Table 25
Significant (P<0.05) correlations between job characteristics and subjective adjustment for each of the groups

	Makam	Kabag	Mahva	LowKaba	Med Kaba
Workload	MO .30	MO .20		MO .21	SCOMP .20 MO .25
Supervision	COM -.25			COM -.20	
Routine		EFF -.36	EFF -.27		
Work hours	SCOMP .24 MO .33 SRV .21				
Supervision of others	SCOMP .27 MO .27 SRV .26 UNIT .22		COND .22		MO .20

COM= Relations with commander   SRV= Service attitudes
COND= Satisfaction with conditions of service   SCOMP= Composite index
MO= Satisfaction with MOS   SAT= General satisfaction item
EFF= Effort attitudes   UNIT= Satisfaction with unit

In addition, it seems that MAKAM soldiers' satisfaction with occupation is related more to job characteristics than the other groups (especially work load work hours and supervision of others).

In order to test this notion, multiple regression was conducted for the whole sample and for each of the groups, where job characteristics were the predictor variables and satisfaction with occupation was the dependent variable.

Results show that job characteristics account for more variance for MAKAM (R-sq$=.13$, $p<.003$) compared to the other groups (MEDKABA R-sq$=.06$, $p<.002$ LOW KABA R-sq$=.03$, $p=.15$ MAHVA R-sq$=-.03$, $p=.70$).

The same pattern exists for the composite subjective adjustment index. Results show that job characteristics account for more variance for MAKAM (R-sq$=.07$, $p<.05$) compared to the other groups (MEDKABA R-sq$=.03$, $p=.02$ LOW KABA R-sq$=.00$, $p=.60$ MAHVA R-sq$=-.01$, $p=.35$). These patterns held when MAKAM soldiers were compared to other soldiers in the same MOS.

To sum up, it can be said that MAKAM soldiers' subjective adjustment tends, in general, to be more sensitive to job characteristics, this being true mainly for satisfaction with occupation. MAKAM soldiers who are more work loaded, work in irregular hours, and supervise others, are a little more satisfied with their occupation (no difference were found between MAKAM soldiers serving in different MOS.).

UNIT CHARACTERISTICS

Unit characteristics explored in this study were sub-unit hardships, base features and manpower environment.

In order to find out whether soldiers from different groups differ on these characteristics even when they serve in similar MOS, a series of two way ANOVAs was conducted in which soldiers from different groups serving in similar MOS were compared. The results of these ANOVAs are described in Appendix I2.

The results can be summarized as follows: MAKAM soldiers serve in more comfortable units, in sub-units with less hardships, and lesser quality manpower. These differences hold in comparisons with MAHVA, LOWKABA and MEDKABA in equivalent MOS.

MAHVA soldiers serve in less comfortable bases and sub-units with more hardships compared to MEDKABA soldiers although not different than LOW KABA.

LOWKABA soldiers do not differ from their MEDKABA or MAHVA counterparts but, compared to MAKAM soldiers, they serve in less comfortable bases with more hardships in sub-units and better manpower quality.

KABAG, compared to other guards, tend to serve more in comfortable bases, but with higher quality manpower.

CORRELATIONS BETWEEN UNIT CHARACTERISTICS AND COMMANDER'S EVALUATIONS

Testing for correlations between unit characteristics indexes and commander's evaluation yielded poor results: at the whole sample level, no correlations were found. Testing for correlations within each group yielded two significant correlations for MAKAM - the proficiency index had an $r=.20$ with quality of manpower environment, and the aggression item had an $r=-.20$ with base features (high score represents more comfortable conditions).

Thus it seems that MAKAM soldiers who serve in a better manpower environment are rated as more proficient by their commanders. MAKAM soldiers who serve in more comfortable conditions show more aggressive behaviors. Testing for correlation for each item comprising the index with commander's evaluations did not change the correlation pattern. A check for non linear patterns of relations also did not yield results.

CORRELATIONS BETWEEN UNIT CHARACTERISTICS AND SUBJECTIVE ADJUSTMENT

Correlations between subjective adjustment indexes and unit characteristics for the whole sample were also very low.

The same correlations examined for each of the group separately (see Table 26 for the significant correlations obtained) shows that for MAKAM, satisfaction with unit was correlated to base features (easy conditions lead to more satisfaction). Effort attitudes were correlated positively to manpower environment.

For KABAG guards, manpower environment seemed to be especially important: it was correlated positively to the general satisfaction item, satisfaction with occupation, and with conditions of service.

Table 26
Significant (P<0.05) correlations between unit characteristics and subjective adjustment indexes

	Makam	Kabag	Mahva	LowKaba	Med Kaba
Composite Index					
General Satisfaction item		Bas -.33 Hard .36 Qual .44			
Relation with commander				Bas .26 Hard -.29	
Satisfaction with MO		Qual .51			
Satisfaction with unit	Bas .22			Bas .32	
Satisfaction with conditions of service		Qual .40		Bas .23	
Effort Attitudes	Qual .29				
Service Attitudes		Qual .39	Hard .30 Qual .29		

BAS= BASE FEATURES
HARD= SUB-UNIT HARDSHIPS
QUAL= MENPOWER QUALITY
Note. Right hand figures are r's

MAHVA service attitudes were correlated positively to sub-unit hardships and manpower environment - the more motivated soldiers served in sub-units with more hardships and a higher quality manpower environment.

LOW KABA soldiers were especially influenced by features of base - soldier who served in more comfortable bases were more satisfied with commander, unit and service conditions.

MEDKABA soldiers' subjective adjustment was not correlated to any unit characteristic.

CONDITIONS OF SERVICE

The commander's questionnaire contained four items describing soldiers conditions of service: need to perform extra duties, serving close/away from home, rate of leaves, and whether the soldier receives extra concession such as extra leaves, and is excused from duties. Low score on each item represents easier conditions. In addition, a cumulative index was used in which a low score represents easy conditions.

Appendix J2 describes means of each MOS by group cell on conditions of service as well as results of a series of two way ANOVAs searching for differences between soldiers from different groups serving in similar MOS.

The results clearly show that MAKAM soldiers get better conditions of service in terms of service close to home (more than all other comparable groups) rate of leaves and overall conditions (more than all comparable groups apart from LOW KABA SSP). They do not differ, however, on getting extra concessions and extra duties.

MAHVA soldiers serve in harder service conditions that MEDKABA but not more than LOW KABA soldiers. LOW KABA soldiers in turn differ from their MEDKABA counterparts only in that they serve less close to home.

KABAG soldier do not differ from other guards on conditions of service.

CORRELATIONS BETWEEN CONDITIONS OF SERVICE AND COMMANDERS EVALUATION

Correlations between each of the service conditions and commander's evaluation were tested for the whole sample and for each group separately. Correlations for the whole sample and for each of the groups (apart from MAKAM) were very low.

For MAKAM, the cumulative index was correlated significantly ($r=.20$) with commanders evaluation composite index, and proficiency index ($r=.20$). MAKAM soldiers who serve in harder service conditions are evaluated as better soldiers. In addition, correlations were found between getting extra concessions and discipline ($r=.20$) and social adjustment indexes ($r=.21$) - the soldiers who get extra concession from their commander are evaluated as more problematic in social and disciplinary terms. These correlations were significantly different than those of their MEDKABA and LOWKABA counterparts ($p<0.05$).

Checking for non-linear relations between conditions of service and commanders evaluations for the other groups did not prove to be fruitful.

CORRELATIONS BETWEEN CONDITION OF SERVICE AND SUBJECTIVE ADJUSTMENT

At the whole sample level, very low correlations between each of the service conditions and subjective adjustment were found. However once again, differential correlation were found in each of the groups.

MAKAM soldier's satisfaction with the unit is higher when they do less extra duties (r=-.28).

KABAG soldiers who do less extra duties, have more positive effort attitudes (r=-.33) and more positive attitudes towards service (r=-.32).

MAHVA soldiers are more satisfied with their occupation when they do less extra duties (r=-.30), when they serve closer to home (r=-.25). They are also more satisfied with their occupation when they have easier conditions of service in general (r=-.30). Another interesting finding is that MAHVA soldiers who get more extra concessions from their commanders are lower on most subjective adjustment indexes: composite index r=.30; general satisfaction item r=.31; attitudes towards service r=.36; effort attitude r=.30; satisfaction with condition of service r=.23; satisfaction with unit r=.24.

LOW KABA soldiers who serve closer to home are more satisfied with service conditions (r=-.28), with their commander (r=-.23) and their unit (r=-. 25). When they get better leaves they are more satisfied with conditions of service (r=-.20) but were less satisfied with occupation (r=.20) and have less positive effort attitudes (r=.27); Finally, when they got more benefits in general, they were more satisfied with unit (r=-.30) commander (r=-.27) and conditions of service (-.32). MEDKABA soldiers subjective adjustment was not related to service conditions.

CIVILIAN ENVIRONMENT- MILITARY RELATIONS

The soldiers' questionnaire contained seven items relating to the experience with military service of the soldier's family and friends and their support for it: father's service, brothers drafting, brothers' early discharge, brothers in combat units, friends drafting, families' attitude towards service, and friends' attitudes towards service. For each of these items a high score represents negative relations. In addition, two environment indexes were computed, one adding up all negative relations for soldiers who had brothers eligible for service, and one for the whole sample, not containing the brothers related items.

Descriptive data on each group's standings on these civilian environment measures is provided in Appendix L2 and can be summarized as follows: for soldiers with brothers, MAKAM civilian environment has the most negative relations with the IDF (although not differing significantly from MAHVA). The rest of the groups did not differ from each other.

MAKAM soldiers had fewer brothers and friends who drafted than all other groups. MAKAM soldiers also had the highest rates of brothers with an early discharge, although they differed significantly only from KABAG soldiers. It should be mentioned that they did not differ significantly from the other groups as far as friends and family's support for service is concerned.

CIVILIAN ENVIRONMENT- MILITARY RELATIONS and COMMANDER'S EVALUATION

A series of two way ANOVA'S was conducted in order to test for effects of group and environment items on each of the commander's evaluation indexes. (KABAG soldiers were not included due to insufficient n in some of the cells).

The results showed that no effects were found for father's service, brothers in combat units, family support, and friends not drafting. There were also no effects for the two environmental indexes. However, for brothers drafting, an interaction was found on the disciplinary index. The interaction showed that MAKAM soldiers were the only group significantly affected by brothers drafting. MAKAM soldiers with brothers drafting received higher evaluations on the discipline index (M=.00) than soldiers with brothers who did not draft (M=-.46).

CIVILIAN ENVIRONMENT- MILITARY RELATIONS and SUBJECTIVE ADJUSTMENT

Table 27 presents correlations between the environment-military items and subjective adjustment indexes. The table shows that a negative correlation exists between the two environment indexes and most subjective adjustment indexes. In other words, negative relations are associated with lesser subjective adjustment.

It can also be seen that correlations are stronger for the composite index, the general satisfaction item and the two attitude indexes (effort attitude and service attitude) they are less related to satisfaction with specific features of service such as commander, unit and MOS.

Table 27
Correlations between environment-military relations and subjective adjustment

	Father's service	Brothers drafted	Brother's discharge	Brother in combat	Friends drafted	Family support	Friends' support	ENV [1]	ENV [2]
scomp	-.08*	-.01*	-.08*	-.09	-.19	-.29	-.31	-.29	-.32
sat	-.07*	-.03*	-.09*	-.07*	-.23	-.25	-.28	-.29	-.32
eff	-.06*	-.02*	-.04*	-.07*	-.23	-.25	-.28	-.26	-.31
srv	-.07*	-.04*	-.06*	-.09*	-.21	-.31	-.32	-.32	-.35
cond	-.05*	-.02*	-.07*	-.08*	-.14	-.24	-.27	-.25	-.27
unit	-.07*	.01*	-.03*	.00*	-.11	-.19	-.21	-.16	-.20
com	-.03*	.03*	-.09	-.05*	-.07*	-.13	-.16	-.14	-.14
mo	-.05*	-.01*	-.06*	-.10	-.05*	-.13	-.08	-.15	-.10

* NS
[1] For soldiers with brothers
[2] For all soldiers
scomp= composite index
sat= general satisfaction item
com= satisfaction with commander
mo= satisfaction with MOS
unit= satisfaction with unit
cond= satisfaction with conditions of service
eff= effort attitudes
srv= service attitudes

The correlations for specific items indicated that, subjective adjustment is less related to families' experience with the military, but rather to family and friends' support of service. A series of two way ANOVAs with group and each of the environment items as independent variables, and each subjective adjustment index as dependent variable showed that the effects, evident in the correlations tables, where significant and hold beyond group differences in subjective adjustment. In addition, no interactions were found, indicating that the pattern of correlation reported in table 27 exists for each of the groups.

CIVILIAN EMPLOYMENT PROSPECTS

Two items in the soldier's questionnaire regarded the soldier's view as to the prospects that his MOS offers outside the military. One asked how much the soldier would have liked to do a job similar to his MOS in his civilian life, the other inquired as to whether he believes that his MOS will help him get a job on the outside. The result of multiplying the two items was regarded as a civilian employment prospects index.

Appendix K2 presents descriptive data regarding the different groups' and MOS' standing on each of these items and index.

The data in the Appendix shows that for MAKAM, those soldiers in the automotive maintenance and building maintenance MOS seem to perceive their MOS as high on civil prospects. The TSK MOS, while not perceived as high on civil prospects by MEDKABA soldiers, is perceived as more so by MAKAM soldiers.

Drivers MOS in general is perceived as high on civilian employment prospects, and even more so by MAHVA soldiers. MAHVA soldiers also tend to perceive the SSP MOS as high on civil prospects. KABAG guards perceive their MOS as very low in civilian prospects, and they do not differ in that from other guards.

Finally, LOW KABA soldiers do not differ from their counterparts in perception of civil prospects in their MOS.

CIVILIAN EMPLOYMENT PROSPECTS AND COMMANDER'S EVALUATION

No correlations were found between the two items and the prospects index and between any of the commanders index, at the whole sample level. Differences in correlation patterns were also not found in each of the groups separately, or in each of the MOS.

CIVILIAN EMPLOYMENT PROSPECTS AND SUBJECTIVE ADJUSTMENT

Correlations of belief that MOS will help get a job on the outside, will to work the same MOS on the outside, and the prospects index and between the subjective adjustment indexes were found (see Table 28).

Table 28
Correlations between civilian prospects and subjective adjustment indexes

	Civilian prospect index	Will to work in similar MOS	MOS will help get a job
scomp	.37	.30	.38
sat	.30	.25	.29
com	.20	.16	.19
mo	.62	.57	.55
unit	.21	.18	.24
cond	.18	.14	.20
eff	.23	.17	.26
srv	.20	.15	.23

scomp= composite index   sat= general satisfaction item
com= satisfaction with commander   mo= satisfaction with MOS
unit= satisfaction with unit   cond= satisfaction with conditions of service
eff= effort attitudes   srv= service attitudes

This correlation was especially strong for satisfaction with occupation prospects index but was present for other subjective adjustment indexes. This pattern of correlation was consistent within the different groups and MOS.

PROBLEMS AT HOME

Two items representing difficulties at home were included in the soldiers' questionnaire. One asked if the soldier had problems at home and the other asked him to define the economic situation of his family. Since the two items were highly correlated, they were converted into z-scores and combined into one index. Low score on this index represents a worse domestic situation.

Descriptive data on groups and MOS standings on this index is presented in Appendix M2.

The results presented in Appendix M2 show that MAKAM and MAHVA soldiers differ from their MEDKABA counterparts in problems at home - they report a worse domestic situation than HIGH KABA soldiers.

KABAG on the other hand, while not differing from other guards, do indeed report a better domestic situation, relative to the rest of the sample.

Finally, LOW KABA soldiers are in between - not significantly better than MAHVA and MAKAM counterparts on the one hand, and not significantly worse than MEDKABA on the other.

PROBLEMS AT HOME AND COMMANDERS EVALUATION

At the whole sample level, very low correlations were found between problems at home index and commanders evaluations.

The only group exhibiting correlations was MAHVA: problems at home were correlated with the aggression item (r=.43) discipline index (r=.32) the social adjustment index (r=.24) the proficiency index (r=.20) and the composite index (r=.27). However, this correlation pattern is not unique to MAHVA soldiers. MEDKABA soldiers in the same MOS (SSP and drivers) also exhibit a similar pattern of correlation. The only significant difference was that for them, problems at home were unrelated to aggressive behavior (r=0.07,ns).

KABAG also showed a correlation between the aggression item and problems at home (r=.31). The equivalent correlation for other guards was insignificant.

PROBLEMS AT HOME AND SUBJECTIVE ADJUSTMENT

Across all groups, meaningful correlations were found between problems at home and the composite index ($r=.21, p<0.001$) the general satisfaction item ($r=.26, p<0.001$) satisfaction with conditions of service ($r=.25, p<0.001$) and satisfaction with direct commander ($r=.25$, $p<0.001$). For these, better domestic situation is associated with better subjective adjustment. No correlation at all was found with satisfaction with MOS.

No interaction was found for group and problems at home on any of the indexes. Thus, it can be concluded that this pattern holds for all groups.

SUMMARY AND DISCUSSION

Study 2 presented data of three kinds. First, in direct continuation with Study 1, the groups were compared on commanders' evaluation of different aspects of the soldiers functioning, and on measures of subjective adjustment of the soldiers to different aspects of military service.

Second, data was presented descriptive of group differences in circumstances of military service: the features of units and sub-units they serve in, extent of demands laid upon them, and features of their civilian environment.

Finally, data on the relations of the circumstances of service and civilian environment to commanders evaluations and subjective adjustment was presented. This data was aimed at exploring the conditions in which disadvantaged soldiers have better chances of success.

COMMANDERS' EVALUATION AND SUBJECTIVE ADJUSTMENT

Group level results for commander's evaluation, reflecting 'positive' indicators of adjustment are generally congruent with the trend observed in Study 1. MAKAM soldiers are significantly lower than MEDKABA soldiers in similar MOS on all commander's evaluation indexes, apart from the aggression item. No MOS can be pointed out in which MAKAM soldiers do better relative to the comparison group.

However, contrary to results on negative indicators, MAKAM soldiers do not differ significantly from LOWKABA soldiers in the same MOS. Unfortunately, this seems to stem from the fact that LOWKABA soldiers, in the MOS dealt with in this study, receive lower evaluations than their MEDKABA counterparts.

Also in line with the results of Study 1, is the fact that from an individual perspective, considerable numbers of MAKAM soldiers do exhibit levels of functioning which can not be discriminated from that of their MEDKABA counterparts mean. Roughly a third of MAKAM soldiers reach at least the mean level of MEDKABA soldiers on commanders evaluations, and 85% of them fall within MEDKABA's means confidence limits.

Interestingly, results of subjective adjustment data are much more encouraging for MAKAM soldiers. On most indexes they do not differ from their comparison groups, and on the composite index, satisfaction with occupation and satisfaction with direct commander they are even higher.

MAHVA soldiers in Study 2 did not include the problematic automotive mechanics group of Study 1, but only SSP and drivers. For these MOS, a trend similar to that of Study 1 was obtained. Similar to Study 1, MAHAVA soldiers were significantly lower than their MEDKABA counterparts on the disciplinary measure. However, for the rest of commanders evaluations indexes, they did not differ significantly from MEDKABA counterparts. Relative to LOWKABA soldiers, MAHVA soldiers are even evaluated as more proficient.

MAHVAs soldiers subjective adjustment does not differ on most indexes from that of MEDKABA and LOWKABA counterparts. In fact, MAHVA soldiers are more satisfied with their MOS than their MEDKABA counterparts.

In this study, a group of non KABAG guards was available as a comparison group. This group included both LOW and MEDKABA soldiers with selection measures scores close to that of the KABAG guards. The results for KABAG soldiers are also congruent with those of Study 1. No significant differences were found between them and the collapsed LOW- and MEDKABA comparison group on both commanders' evaluations and subjective adjustment.

As has been mentioned, contrary to Study 1, LOWKABA soldiers in the present study were lower on all commander's evaluations than their MEDKABA counterparts. This was true for all measures apart from the aggression item.

These results may hint that differences between this group and the general norm group are apparent only when functioning in MOS and unit are evaluated. In other words, these soldiers may not be especially problematic but they do not reach the MEDKABA soldiers level of functioning while stationed in their units.

Once again, from an individual perspective, considerable numbers of LOWKABA soldiers do reach MEDKABA soldiers' mean or fall within its confidence limits. The proportions of these are quite similar to those of MAKAM soldiers.

No differences between this group and MEDKABA soldiers in terms of subjective adjustment were apparent.

CIRCUMSTANCES OF SERVICE AND CIVILIAN ENVRIRONMENT

In Study 2 data on group differences in circumstances of military service and civilian background was presented. This data enable us to further portray the military and civilian circumstances of the disadvantaged soldiers.

MAKAM soldiers military environment is generally less demanding then other soldiers serving in similar MOS. MAKAM soldiers work less in irregular hours, are rarely demanded to supervise others, and apart from TSKs their workload is lower. They serve in more comfortable bases, closer to home, and get more leaves.

However, their commanders do not report giving them more extra concessions, the conditions of their sub-units are not less demanding, and they do serve in a lower quality manpower environment.

Their civilian environment is more deprived. They come from a worse economic background than MEDKABA soldiers (but not worse than MAHVA and LOWKABA). The relations of their civilian environment with the military is also problematic: they have more brothers who either did not serve or were discharged prematurely, and more friends who were not drafted. These data are not surprising when remembering the portrayal of disadvantaged populations general attributes. However, they do not report lower support of family and friends in service.

MAHVA soldiers civilian environment is not better than that of MAKAM.They do not differ from them on the problems at home index and civilian-military relations.

However, surprisingly enough, in many cases these soldier serve under more demanding conditions than MEDKABA equivalents. They work more on irregular hours, they are less closely supervised, their bases are less comfortable, and conditions in sub-units are more demanding. In addition they get worse leaves, and serve further away from home.

KABAG soldiers, civilian environment is not different from that of other guards, and apart from serving in more comfortable bases and in a better manpower quality environment, their military circumstances are also not different.

LOWKABA soldiers, while coming from worse economic background than MEDKABA equivalents, do not serve in less demanding circumstances (apart from lower need to supervise others and being more closely supervised).

MILITARY AND CIVILIAN CIRCUMASTANCES RELATIONS TO COMMANDER EVALUATIONS AND SUBJECTIVE ADJUSTMENT

In Study 2 an attempt was made to explore some conditions, in terms of military and civilian circumstances, in which disadvantaged soldiers have better chances of success. These conditions were presented in the introduction in terms of hypotheses depicting the expected effects of each of the conditions. In the following sections we shall consider the data collected on each of the hypotheses.

JOB, SUBUNIT AND UNIT DEMANDS

It was hypothesized that job characteristics that provide lighter demands, may lead to better adjustment.

The results do not support this hypothesis. On the contrary, results showed that in terms of commanders evaluations the direction was opposite - the soldiers who served under more demanding job circumstances were rated higher on most commanders indexes.

In addition, when these variables were related to subjective adjustment (which is mainly true for MAKAM soldiers) the soldiers more satisfied were those who had more demands laid upon them. MAKAM soldiers were more sensitive to job characteristics in terms of subjective adjustment.

However, as mentioned in the results section, it is hard to infer as to direction of causation. It may be that the better soldiers are those who survive in more demanding circumstances,or that commanders tend to give higher evaluations to soldiers practicing their MOS in more demanding circumstances.

It was also expected that when low demands are made upon the sub-unit in which the soldier serve better adjustment could be expected. The same was said for features of the bases in which the soldiers serve: serving in an open base, rear zone and close to an urban center represent lesser demands upon soldiers serving in these bases and can enhance adjustment.

For sub-unit hardships no support whatsoever was found in terms of commanders' evaluations or subjective adjustment.

For base features, some very limited support was found, mainly for subjective adjustment: MAKAM and LOWKABA soldiers were more satisfied with some features of service when base features were more comfortable.

PROBLEMS AT HOME AND MOS CIVILIAN EMPLOYMENT PROSPECTS

It was expected that the soldiers with more problems at home will be the less adapted.

This hypotheses received support mainly in terms of subjective adjustment. Soldiers who reported more problems at home were those who were less subjectively adjusted. This relation was evident for all groups and was not unique to disadvantaged groups. However, it should be remembered that data on both sets of variables were collected from the soldiers.

In terms of commanders' evaluations, this hypothesis received some limited supported only for MAHVA soldiers and only for aggressive behavior.

It was expected that better service conditions (such as high rate of leaves, serving close to home, no extra duties, and receiving extra concessions) will lead to better adjustment.

Partial support for this hypothesis exists in subjective adjustment data. Various correlations within the groups were found, mostly in the expected direction, showing that better conditions of service are related to some aspects of subjective adjustment. Further, it seems that only disadvantaged groups are sensitive to conditions of service since no correlations were found for MEDKABA soldiers.

The only group who showed correlations between conditions of service and commanders evaluations was MAKAM. However, the correlations were contrary to the expected direction. MAKAM soldiers who served in harder service conditions were rated higher than those serving under easier conditions.

Once again, it can hardly be concluded that it is better to station these soldiers under harder conditions. It may well be that MAKAM soldiers who are placed or survive these conditions are a selective group of better soldiers.

It was expected that when soldiers perceive their MOS as promoting their occupational prospects after discharge adjustment will be greater.

Relatively high correlations were indeed found between perceptions of civil prospects and subjective adjustment across all groups. Soldiers who perceived their MOS as promoting their occupational chances in the civilian world were better subjectively adjusted on most indexes.

However, this perception dose not seem to be related to soldiers' functioning. No support was found for this hypotheses as far as commanders evaluations were concerned.

CIVILIAN ENVIRONMENT SUPPORT AND MANPOWER QUALITY IN UNIT

It was expected that soldiers whose civilian environment has more positive relations with the military would display better adjustment.

In terms of commander's evaluation only very limited support was obtained for this hypothesis. MAKAM soldiers with brothers who did not draft showed more disciplinary problems than those with brothers who drafted.

Support for the environment support hypothesis was obtained from subjective adjustment data. Correlation were evident especially as far as general attitudes were concerned, and perceived support of family and friends.

Finally, it was expected that a higher quality manpower environment in the soldier's unit may provide good role models and provide positive influence can enhance the soldiers adjustment.

This hypothesis was supported mainly for MAKAM soldiers. MAKAM soldiers serving in a better manpower environment were rated slightly better than other MAKAM soldiers. These soldiers showed better subjective adjustment on some indexes.

Better subjective adjustment on some indexes was also displayed by MAHVA and KABAG soldiers serving in a better manpower quality environment.

GENERAL DISCUSSION

What can be learned from the IDFs experience in attempting to integrate disadvantaged soldiers into military service? Can this attempt be considered successful?

The answers to these questions seem to depend on the point of view adopted when interpreting the data. We shall interpret the data presented in the current research along the two different perspectives presented in the introduction section - the 'cost/benefit perspective' and the 'individual perspective'. These two perspectives differ in the criteria they apply in evaluating the attempt to integrate disadvantaged soldiers into the IDF.

The cost/benefit perspective examines the issue of integration of disadvantaged soldiers through the point of view of the benefit of the organization. The soldiers, in return for the costs incurred by the organization in training and maintaining them, are expected to 'adapt' to military service. Adaptation in this case reflects a lack of deviation from a normal state of functioning expected from the soldier (e.g., soldiers stationed in a unit, practicing, in a satisfactory way, the MOS they were assigned to).

Within this perspective, soldiers' adaptation to service may be examined through group level differences on the various adaptation indicators. In order to characterize the disadvantaged soldiers' integration into military service as successful, the expectation is for minimal or non-existent differences on these indicators relative to the 'next best' group of non-disadvantaged soldiers available for placement in similar MOS. Thus, if disadvantaged soldiers in a certain MOS are, on average, lower on a certain adaptation indicator, it can be said that their inclusion, as a group, in this MOS is less cost effective than that of non disadvantaged soldiers.

The data presented in this research indicates that the success of integration of disadvantaged soldiers in military service varies according to the disadvantaged group in question. The four groups of disadvantaged soldiers examined in the present research differ in pre-induction personal characteristics, creating a 'hierarchy' of 'disadvantageness' among the groups. This hierarchy more or less corresponds to the level of 'returns', in adaptation terms, the organization is provided with.

The LOWKABA group includes soldiers who, apart from being low on cognitive and motivational-behavioral selection measures, do not exhibit severe pre-induction psychosocial problems or an especially low education level. These soldiers do not go through any special intervention programs, and their service circumstances are similar to those of MEDKABA soldiers.

The adaptation of these soldiers to military service presents two problematic areas. First, they exhibit more involvement in disciplinary incidents. This, in fact, is a common feature of disadvantaged soldiers in general. Second, when functioning levels while serving in a unit practicing an MOS are examined through commanders' evaluations, the LOWKABA soldiers' average falls short of that of their MEDKABA counterparts.

However, on the other indicators, such as maladjustment discharge, the MOS survival measures and unit stability, these soldiers do not deviate from the level of their MEDKABA counterparts.

The MAHVA group includes soldiers with low cognitive and motivational-behavioral selection measures scores, and low education level. These soldiers go through a longer training period than non-disadvantaged soldiers since they participate in an education enrichment course. These soldiers are not placed in less demanding service environments. On the contrary, on some unit and job characteristics, they serve in more demanding circumstances.

It seems that these soldiers' adaptation varies according to the MOS they are assigned to. When they are assigned to the SSP and driver MOS, they do not fall short of their MEDKABA counterparts on most adjustment indicators apart from two: they show higher rates of maladjustment discharge and disciplinary problems. However, they do not differ from their MEDKABA counterparts in commander's evaluations, and the other adjustment indicators.

Their assignment to the mechanics MOS, which demands more training and skill, seems to be less successful: for MAHVA mechanics, consistent differences were found across the board in comparison with their MEDKABA counterparts in Study 1.

The MAKAM group includes the most deprived soldiers. Apart from being low on the cognitive, motivational-behavioral and educational dimensions, they were also diagnosed as suffering severe pre-induction psychosocial problems. These soldiers go through a lengthy intervention program before they are stationed in their units, and are followed closely by a specialized supporting system. These soldiers are stationed in less demanding environments.

In cost/benefit terms, the data presented in this research shows that across the board, this group of soldiers fails to reach their MEDKABA counterparts levels of adaptation. As far as the 'negative' adjustment indicators are concerned they even fail to reach the level of their LOWKABA

counterparts. Contrary to MAHVA soldiers, these findings are rarely qualified with MOS assignment.

Finally, the KABAG group includes soldiers that, although not necessarily having a low Kaba, were diagnosed as suffering from mental problems which can inhibit proper service. These soldiers are assigned to the guard MOS which is associated with lesser demands. They do not go through an intervention program and are stationed right after basic training.

The integration of these soldiers in this MOS seems to be quite successful. They do not differ from MEDKABA soldiers in general on any 'negative' adjustment indicator reviewed in Study 1, and they do not differ from an equivalent group of non KABAG guards on commander's evaluations of Study 2.

Thus, in cost/benefit terms, the extent of success in integrating the disadvantaged soldiers into military service varies according to their disadvantaged group membership. For one group the attempt can be considered successful (KABAG guards). For two groups (LOWKABA and MAHVA SSPs and drivers) the attempt cannot be considered as extremely successful but, considering that deviations were restricted only to a few specific problem areas (mainly discipline), their adaptation can be considered reasonable. Finally, in cost/benefit terms, the attempt to integrate MAKAM soldiers to military service seems to be the least successful.

However, cost/benefit considerations are far from being the only considerations applied in the IDF's disadvantaged populations policy. A different set of considerations stems from social values considerations and the wider social roles the Israeli society expects the IDF to fulfill. These considerations are reflected in the fact that an important goal of the IDFs disadvantaged youth policy is to promote the disadvantaged individual's welfare through his integration in military service. The underlying assumption of this goal is that going through proper military service is congruent with the disadvantaged soldier's welfare and goes towards integrating him in main stream society.

This goal dictates the adoption of a different approach to the evaluation of the success of this policy. This approach does not look at average group differences and rates of returns but, rather, at the number, or proportion, of disadvantaged soldiers who do go through reasonable military service. These numbers can serve as estimates of how many disadvantaged

soldiers benefit from their inclusion in the military (providing that proper service is indeed congruent with soldiers' welfare).

Looking at the data of the present research from this 'individual' perspective, the findings are much more encouraging. Data was presented showing that, even for the MAKAM group, the least successful group in cost/benefit terms, considerable numbers of soldiers do not fail to reach satisfactory standards on each of the adjustment indicators. Thus, three-quarters of MAKAM soldiers go through the full length of service, and 40% do so in their designated MOS. One-quarter of MAKAM soldiers go through full service without exhibiting any maladjustment problem. When adjustment is evaluated by direct commander, a third of MAKAM soldiers reaches at least the average level of their MEDKABA counterparts.

The individual perspective is the one that seems most appropriate to look at the subjective adjustment data. These findings show that the disadvantaged soldier's subjective sense of well-being, as reflected in their satisfaction, attitudes and identification with different aspects of the military and their service within it, is at least not different than that of other non-disadvantaged soldiers (indeed, on some indexes it was even better). It seems that this data can be interpreted as reflecting success of the policy from the individual perspective.

The present research was not aimed at the evaluation of the effectiveness of the MAKAM Intensive Enrichment Program or the MAHVA Education Enrichment Program. It can be said that the participation in the MAKAM program certainly does not bring the soldiers to the level of 'returns' typical of other soldiers. In cost/benefit terms, the 'returns' for the resources invested in training and maintaining these soldiers are quite poor - compared to what can be expected from other not disadvantaged soldiers (and in some cases, from other disadvantaged soldiers).

However, considering their much worse opening position, the figures presented above of soldiers not failing to reach various adaptation standards can hardly be said to reflect a failure of this program. One can only speculate that in the lack of this program and support system, many of these disadvantaged soldiers that do seem to benefit from a reasonable military service would have failed to do so.

In the present study, an attempt was also made to explore the various factors that are related to disadvantaged soldiers' adjustment. Differences in pre-induction personal characteristics, as reflected in the classification of soldiers into the different disadvantaged group were indeed shown to

correspond, to some extent, to adjustment. However, results of the attempt to explore the relations of MOS assignment and other service circumstances variables, while yielding some interesting results (discussed in Study 2) did not produce a strong or consistent enough pattern to warrant practical stationing guidelines recommendations.

A few possible explanations for this are possible. It is indeed possible that service circumstances do exert only minor influence on a soldier's adaptation compared to his pre-induction personal characteristics. And that little can be done in assignment and stationing policy terms to offset preexisting differences in ability. However, It is also possible that since the research was carried out in real life circumstance, self selection factors went towards limiting the effects obtained. This might have been done in two ways.

First, soldiers are not randomly assigned to the different service circumstances. Placement officers interview the soldiers and try to assign them to service circumstances suitable for their abilities and desires (this is especially true for MAKAM soldiers). Second, all the soldiers in Study 2 completed at least one year of service. Soldiers that failed to adjust to service circumstances might have either been already discharged, or moved to units and jobs more suitable for their ability. This may have left us with soldiers who 'found their places' in terms of service circumstances, thus restricting the magnitude of effects of these variables.

This last consideration points at a possible direction for future research. If the search for service circumstances promoting adjustment of disadvantaged soldiers is to be further pursued, it should be done using a longitudinal research design. While it will be still impossible to randomly assign disadvantaged soldiers to different service circumstances, it will be possible to follow them through the first couple of stationing, measuring their service circumstances. This will go towards limiting the effect of self selection and will allow the researcher to reach conclusions of a causative nature.

Personal characteristics, as measured by IDF selection measures, distinguish between different groups of disadvantaged soldiers according to severeness of disadvantages. Within the groups, these selection measure scores can hardly be expected to predict adaptation differences due to severe range restrictions. This is especially true for the MAKAM group.

This suggests another direction for future research. There is still room to try and look for pre-induction selection instruments that can differentiate between soldiers who do benefit from the intervention program and soldiers who do not. This will improve both the cost/benefit performance of the intervention programs and spare the soldiers who cannot benefit from them the experience of another failure.

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APPENDIXES

APPENDIX A1: IDF'S SELECTION INSTRUMENTS

1. **Intelligence:** is measured by the DAPAR battery. This battery consists of four intelligence tests: verbal analogies, figural analogies, mathematical reasoning and verbal reasoning. Its scores range is 10-90 with a mean of 50 and standard deviation of 20.

2. **Education:** Measured by the education index, which ranges from 1-12 ,and reflects the education level of the recruit.

3. **ZADAC (general grading score):** determined by an interview in which general motivation and personality are evaluated. Each inductee is scored on four characteristics: Pride (motivation and identification), punctuality (exactness and attention to details), commitment (desire to fulfill requirements), Activity (activeness and determination), and a general prediction score (expected success in field unit). ZADAC can range between 8-40.

4. **KABA:** A composite (quality group measure KABA) is a general measure used for personnel planning, selection and placement. It is computed as a weighted composite score of Dapar, Zadac and education. KABA scores can range from 43-56.The main Kaba groups are:

   43-46: Low Kaba --the bottom quarter of draftees.

   47-50: Medium Kaba -- 25% percent of the draftees population,

   51-56: High Kaba -- 50% of draftee population.

5. **KAHAS (measure of psychosocial adjustment):** an extensive interview performed by mental health officers to determine the existence and level of psychosocial adjustment problems. The final evaluation is a weighted composite score derived from the following sub scores: family as a support system, level of past performance, interpersonal relations, adjustment and coping behaviors, antisocial behavior, motivation and attitude towards military service, overall prediction of adjustment. The Kahas also serves as a screening measure for psychopathological indicators, which require psychiatric diagnosis. KAHAS scores determine stationing limitations: 00-20 no stationing limitations, 40-50 different levels of stationing limitations.

6. **Mental fitness:** determined as part of the medical profile of the draftee. It is determined by psychiatrists. It appears as an indication of an identified mental health problem within the medical profile.

APPENDIX A2: SELECTION MEASURES DATA FOR HISTORIC SAMPLE

Tables 1-5 present means of each MOS by group sub-samples on IDF selection measures, as well as ANOVA data for whole sample group differences, for study 1.

Table 1
Means of Kaba scores by group and MOS

	Makam	Kabag	Mahva	Lowkaba	Med Kaba
TSK	44.0			45.87	50.67
Building Maintenance	43.91			45.69	48.74
HME	44.15			44.96	48.91
Automotive Electricians	44.02			45.43	48.18
Automotive Mechanics	43.94		44.48	45.14	48.68
SSP	43.97		44.36	45.20	47.84
Drivers			44.81	44.69	49.06
Guards		46.08			
Whole Sample*	44.00 E	46.08 B	44.55 D	45.27 C	48.96 A

* $F_{(4,1114)} = 593.00$, $p < .001$

Note. Means having different subscripts differ with significance levels ranging from $p < .05$ to $p < .001$ (Tukey's studentized range test)

Table 2
Means of Dapar scores by group and MOS

	Makam	Kabag	Mahva	LowKaba	Med Kaba
TSK	27.65			30.87	56.64
Building Maintenance	22.86			29.56	45.31
HME	32.77			30.43	44.44
Automotive Electricians	28.41			33.39	43.80
Automotive Mechanics	23.96		36.48	29.64	43.40
SSP	23.78		27.40	32.80	43.60
Drivers			35.77	31.77	45.09
Guards		35.96			
Whole Sample*	26.77 d	35.96 b	33.33 bc	31.23 c	46.21 a

* $F_{(4,1114)} = 135.39$, $p < .001$

Note. Means having different subscripts differ with significance levels ranging from $p < .05$ to $p < .001$ (Tukey's studentized range test)

Table 3
Means of Zadak scores by group and MOS

	Makam	Kabag	Mahva	LowKaba	MedKaba
TSK	12.12			16.65	19.35
Building maintenance	12.77			16.71	20.70
HME	11.70			16.53	21.37
Automotive Electricians	12.05			15.62	19.84
Automotive Mechanics	12.91		13.56	16.27	21.43
SSP	12.68		13.88	14.84	17.77
Drivers			14.85	14.51	19.89
Guards		14.71			
Whole Sample*	12.35 d	14.71 c	14.09 c	15.85 b	20.02 a

* $F_{(4,1114)}= 200.61$, $p < .001$
Note. Means having different subscripts differ with significance levels ranging from
$p < .05$ to $p < .001$ (Tukey's studentized range test)

Table 4
Means of Education scores by group and MOS

	Makam	Kabag	Mahva	LowKaba	MedKaba
TSK	9.45			11.85	12.73
Building maintenance	7.94			10.97	11.20
HME	9.38			10.13	11.22
Automotive Electricians	8.91			10.68	11.22
Automotive Mechanics	9.09		9.96	10.48	11.34
SSP	8.51		8.70	10.82	11.80
Drivers			9.35	9.77	11.96
Guards		10.23			
Whole Sample*	8.95 c	10.23 b	9.35 c	10.65 b	11.69 a

* $F_{(4,1114)}= 50.09$, $p < .001$
Note. Means having different subscripts differ with significance levels ranging from
$p < .05$ to $p < .001$ (Tukey's studentized range test)

Table 5
Distribution of Kahas scores by group and MOS

	Makam	Kabag	Mahva	LowKaba	Med Kaba
TSK	0=6 40=6 41=29 50=59		0=67 40=17 41=17	0=50 40=30 41=15 50=4	0=72 40=20 41=7
Building maintenance	0=3 41=11 50=86			0=69 40=13 41=16 50=2	0=92 40=6 41=2
HME	0=13 40=9 41=11 50=68			0=79 40=11 41=9 50=2	0=94 40=2 41=2 50=2
Automotive Electricians	0=14 40=2 41=11 50=73			0=60 40=25 41=15 50=0	0=84 40=6 41=10
Automotive	0=6 40=6 41=11 50=77		0=85 40=6 41=3 50=0	0=66 40=14 41=14 50=5	0=89 40=9 41=2
SSP	0=8 40=3 41=5 50=84		0=56 40=44 41=0 50=0	0=52 40=48 41=0	0=58 40=40 41=2
Drivers			0=37 40=33 41=31	0=39 40=25 41=25 50=10	0=79 40=8 41=13 50=0
Guards		0=38 40=29 41=29 50=4			
Whole Sample	0=8 40=4 41=14 50=73	0=38 40=29 41=29 50=4	0=60 40=27 41=13 50=0	0=59 40=24 41=14 50=3	0=81 40=13 41=6 50=0

Note. Left hand figures represent Kahas values, whilst right hand figures represent
the percentage of soldiers having a Kahas score in the cell.

In order to verify that differences between different groups in the same MOS are stable, a series of two way ANOVAs of group by MOS was conducted for each set of MOS on selection instruments scores. The results of this series of ANOVAs are presented below.

MAKAM Vs MEDKABA

Interaction was significant for KABA ($F_{(5,574)}=13.73$, $p<0.001$) for Dapar ($F_{(5,574)}=7.05$, $p<0.001$) and Zadac ($F_{(5,572)}=4.38$, $p<0.001$). Post hoc analysis shows that for Kaba and Dapar MAKAM v MEDKABA differences are slightly smaller for SSP and slightly greater for TSK (means are presented in tables 1-5). For Dapar differences are greater for TSK and smaller for HME. For Zadac differences are smaller for SSP and greater for HME.

MAHVA Vs MEDKABA

Interaction was significant for DAPAR ($F_{(2,300)}=4.82$, $p<0.001$) and for education ($F_{(2,300)}=3.56$, $p<0.05$). In both cases, differences for SSP are smaller.

LOWKABA Vs MEDKABA

interaction was significant for KABA ($F_{(6,706)}=9.24$, $p<0.001$) and for Dapar ($F_{(6,706}=4.90$, $p<0.001$). For KABA, differences were smaller for SSP and slightly greater for TSK. The same is true for Dapar:

APPENDIX A3: SELECTION MEASURE STATISTICS OF STUDY 2

At whole group level samples of study 1 and 2 are not comparable due to different MOS compositions. However, if data from the two studies is to be integrated, the expectation is that at MOS by group sub-sample levels, the selection measures data should be the same across the two studies (e.g., we expect that MAKAM TSK study 1 selection measure scores will not be different from MAKAM TSK study 2 data.).

This was confirmed using a series of two way ANOVAs in which independent variables were sample (current v historic) and group for each MOS separately on each quality variable.

Meaningful differences were found only for the SSP sample. For this sample, interaction of sample by group was found for Kaba $(F(3,407)=16.05, p<0.001)$. While for none of the groups differences between historic and current sample were found, MEDKABA SSP from the current sample $(M=48.82)$ were slightly higher than those from the historic sample (47.84).

Interaction was also found for Zadac $(F(3,405)=8.77, p<0.001)$: while all groups in current sample had higher Zadac (MAHVA historic $M=13.88$ current $M=15.27$; LOW KABA historic $M=14.84$; current $M=16.11$. MEDKABA historic $M=17.77$ current $M=22.09$) MAKAM SSP were the same (historic $M=12.03$ current $M=12.68$).

Main effect were found for Dapar $(F(1,407)=18.77, P<0.001)$- all groups of SSP had slightly higher Dapar (MAKAM historic $M=23.78$ current $M=29.31$; MAHVA historic $M=27.40$ current $M=31.61$ LOW KABA historic $M=32.80$; current $M=36.80$ MEDKABA historic $M=43.60$ current $M=48.78$).

Thus it seems that overall, current SSP have higher scores on the selection variable than historic SSP. However, SSP in the current sample may include soldiers with higher quality than those required for this MOS. These soldiers ended up in this MOS after dropping from MOS requiring higher quality (such as many medical dropouts from combat units). Contrary to them SSP soldiers in the historic sample are those who were designated to this MOS because of their low selection measures scores. It may be assumed that those who joined SSP after dropping out from higher MOS are those who raise the absolute quality of soldiers in SSP in the current study.

Two variables could not be compared across the two samples due to changes made in their make up and computation scales during 1991-1992. Those are KAHAS and education. The new version of the education measure included more types of education in the higher categories of 11 and 12. The new version of KAHAS forced ratters to use categories of 10 and 20. For these two variables detailed means and distributions of the new versions are provided (see table 1 for Kahas and table 2 for education of current sample).

Table 1
Distribution of Kahas scores by group and MOS of current sample

	Makam	Kabag	Mahva	LowKaba	Med Kaba
TSK	40=2 41=18 50=80				0=21 10=21 20=28 40=21 41=10 50=0
Building maintenance	40=5 41=27 50=68				
Automotive Maintenance	40=13 41=25 50=63			0=7 10=16 20=11 40=41 41=20 50=5	0=13 10=13 20=25 40=25 41=25 50=0
SSP	40=3 41=31 50=66		0=3 10=6 20=6 40=58 41=26	0=12 10=9 20=9 40=41 41=26 50=3	0=15 10=20 20=10 40=50 41=0 50=5
Drivers			0=8 10=4 20=8 40=50 41=31	0=6 10=4 20=14 40=39 41=37 50=0	0=6 10=13 20=6 40=56 41=13 50=6
Guards *		0=3 10=9 20=14 40=34 41=37 50=3			0=14 10=10 20=29 40=29 41=10 50=10
Whole Sample	40=6 41=25 50=69	0=3 10=9 20=14 40=34 41=37 50=3	0=6 10=5 20=7 40=53 41=29	0=8 10=10 20=12 40=39 41=29 50=29	0=14 10=17 20=17 40=38 41=11 50=3

Note. Left hand figures are the Kahas categories
* collapsed low and Med Kaba guards.

Table 2
Means of education scores by group and MO

	Makam	Kabag	Mahva	LowKaba	MedKaba
TSK	10.08				11.94
Building Maintenance	10.14				
Automotive Electricians					
Automotive Mechanics	10.30			11.93	11.95
SSP	9.93		10.71	11.34	11.91
Drivers			10.46	10.76	11.66
Guards		11.75		11.70	
Whole Sample	10.02 d	11.75 a	10.60 c	11.35 b	11.84 a

$F_{(4,826)}= 513.19$, $p < .001$

Note. Means having different subscripts differ with significance levels ranging from
$p < .05$ to $p < .001$ (Tukey's studentized range test)

Our analysis model consists of comparing each disadvantaged group to a comparison group of the next best soldiers in the same MOS and estimation to see whether the differences between differences are significant (group by MOS interactions). This is done in order to determine whether the disadvantaged soldiers in one MOS level of adjustment is different from that of another MOS (e.g. if the differences between MAKAM SSP and MED KABA SSP is smaller than the difference between MAKAM mechanics and MEDKABA mechanics, we can conclude that MAKAM SSP are better adjusted than MAKAM mechanics).

However, because soldiers in each MOS are not exactly similar in selection measures data (e.g. MEDKABA SSP have lower Kaba than MEDKABA TSK), a requirement is made that the differences between disadvantaged group in each MOS and its comparison group will be constant. Otherwise smaller differences may be a result of smaller differences in Kaba and not smaller differences in the dependent variable in question.

In order to test this assumption, a series of two way ANOVAs was conducted of group by MOS for each set of comparisons on the selection variables.

MAKAM Vs MEDKABA

Interaction was significant for KABA ($F(2,351)=9.85, p<0.001$) and Zadac ($F(2,351)=5.20, p<0.001$). Post hoc analysis shows that for Kaba MAKAM v MEDKABA differences are slightly smaller for automotive maintenance (MAKAM M=44.25 MEDKABA M=48.48) and slightly greater for TSK (MAKAM M=44.24 MEDKABA M=50.25) and SSP (MAKAM M=43.96 MEDKABA M=49.82). For Zadac greater differences were found for SSP (MAKAM M=12.03 MEDKABAM=22.08) and smaller for TSK (MAKAM M=13.45 MEDKABA M=20.33) and for automotive maintenance (MAKAM M=13.22 MEDKABA M=21.64).

MAHVA Vs MEDKABA

Interaction was significant for KABA ($F(1,247)=11.86, p<0.001$) and for Zadac ($F(1,245)=7.15, p<0.05$). For KABA, differences between MAHVA (M=44.69) and HIGHKABA SSP (M=49.82) are greater than differences between MAHVA (M=44.82) and MEDKABA automotive maintenance (M=48.57). The same is true for Zadac: MAHVA SSP M=15.26, MEDKABA SSP M=22.08; MAHVA automotive maintenance M=15.53 MEDKABA automotive MAINTENANCE M=19.76). No interaction was found for Dapar and Education.

LOWKABA Vs MEDKABA

Interaction was significant only for KABA ($F(2,417)=9.85, p<0.001$) For KABA differences were greater for SSP (LOW KABA M=45.13 MEDKABA M=49.82) than for drivers (LOW KABA M=44.79 MEDKABA M=48.57) and for automotive maintenance (LOW KABA M=45.34 HIGHKABA M=48.48).

To sum up, it can be seen that differences between MEDKABA SSP and disadvantaged groups are slightly greater in terms of Kaba then comparable disadvantaged groups, and Dapar compared to MAKAM and MAHVA). Again it should be noted that the differences between differences, although significant, are very slight. Therefore it can hardly be assumed that such mild differences are responsible for the differences on differences in the adjustment variables.

APPENDIX B: DESCRIPTION OF MILITARY OCCUPATIONS IN THE RESEARCH

TECHNICAL STORE KEEPERS

TSKs work in technical equipment storage rooms. Their job descriptions include unloading equipment, putting it in order in the storage room, take care of spare parts ,issue them to the unit's members, filling forms and keeping records of parts accepted and issued. He is expected to prepare spare parts to be issued, keeping records of stocks and report stock levels.

He is expected to be familiar with tools and materials used in workshops, catalogue numbers and professional terminology of his work.

HEAVY MECHNICAL EQUIPMENT OPERATOR (HME)

The HME is expected to be able to operate tractors and shuffles. He is expected to help technical staff to do repair work and do elementary repair work himself. He may also have to operate air compressors. He is expected to know the operating principals of the equipment he operates. He is also expected to be familiar with safety rules and traffic rules relevant to his equipment.

AUTOMOTIVE MECHANIC

The automotive mechanic works mostly in a car workshop but is expected to do some on the road repair work. Apart from routine maintenance work (e.g. checking oil levels, greasing, leak inspection) he is expected to be able to dismantle, inspect repair, and reassemble different vehicle parts.

He is expected to know how to identify different mechanical subsystem, know their function and place in the vehicle.

AUTOMOTIVE ELECTRICIAN

The automotive electrician works mostly in a car workshop but is expected to do some on the road repair work.

He is expected to identify electric faults, inspect, tune, dismantle, repair and reassemble the vehicle's different electrical systems.

He is expected to know his way around the different electric circuits and be familiar with function and place of different electrical subsystems.

BUILDING MAINTENANCE

The buildings maintenance may specialize either in carpentry or metal work. Carpentry work includes preparation of wooden parts for construction (e.g.. sawing and edging) and do some construction (e.g. shelves and window frames) and repair work of wooden building parts. The metal work includes flame cutting and welding metal building parts during construction or repair work.

DRIVER

The driver drives up to eight and a half ton vehicles under all road and visibility conditions, supervises loading and unloading of the vehicle, does daily maintenance work and minor repair work (such as changing flat tires).

He is expected to be familiar with basic operation and parts of the vehicle, fault diagnosis, and safety and traffic rules.

SERVICE AND SUPPLY PERSONNEL

This MOS includes soldiers doing un specialized assistance work in unit's head quarters. This work may include general store keeping, canteen operation, kitchen assistance, general clerical work, and taking care of gardening, paint work and hygiene of the unit's base facilities.

This MOS does not require special training.

BASE GUARD

Base guards carry out guard duties either in static posts (such as watchtowers and base gates) or participate in mobile patrols around base perimeter fence or internal facilities.

They are expected to be familiar with routine and emergency procedures, know how to identify and react to suspicious activities.

Their work is mainly done in shifts or may be on a week on week off bases.

APPENDIX C: EDUCATIONAL INTERVENTIONS FOR THE DISADVANTAGED

There are several educational interventions for disadvantaged soldiers in the I.D.F. This section provides a description of those courses in terms of their pedagogical attributes. The courses serve several purposes: that of providing the soldiers with a better education and/or language proficiency, that of enhancing their motivation and commitment to the military service, and that of providing the army with better soldiers. These goals influence the choice of content and work methods, and the integration of a general education with military content. Several methodological principles are implemented during the courses:

- The learning is carried out in small groups of no more than ten soldiers. Each group has its own teachers who serve also as their commanders.
- The teachers are women-soldiers, in their compulsory service. They are all highly motivated - working day and night with their groups. They also serve as a model of a well adjusted and a well educated person.
- Before each course cycle, the whole staff goes through a preparatory seminar, in which they learn about the disadvantaged populations, adaptation problems, etc.
- The motivation for a meaningful military service is increased by using military relevant material in the general education curriculum, by the field trips that enhance the soldiers' feelings of belonging to the country and to the nation, etc.
- Some of the learning processes are computer assisted.

The preparation for the military service, which is a part of all the courses, includes several elements:

- The military framework (including basic training, guard duties etc.)
- Development of realistic expectations from the service.
- Enhancing self-image and motivation.
- Enforcing discipline.
- Enhancing general values.
- Taking care of all personal problems.
- Getting information about the different possible occupations.

The following sections describe in some detail the different courses:

Hebrew Language Course

The goals of the course are the improvement of the soldier's reading, listening, and writing skills, and raising the soldier's Hebrew score. The course is designed for soldiers who do not have a full grasp of reading and writing skills. The guiding principle for the selection of content is the practicality of the material used. The program attempts to develop those skills which will contribute directly to the daily life of the soldier in the army, and in his civilian life afterwards. For example, newspaper articles are used for reading

comprehension exercises, and the filling out of forms and writing of letters are used as writing exercises.

The methods of instruction are geared to this goal, with the guiding principle being education towards independent reading, with the student coping with texts on his own, even in the early stages of the course. The existing bibliographies are suited to the needs of the students, with regard to levels and areas of interest.

Elementary Education Course

The goal of the course is raising the soldier's educational level. In the curriculum, the characteristics and difficulties of the population are taken into account, as are time limitations, and limited teaching experience of the teaching staff. The curriculum includes the following subjects: Bible, Nature, The State of Israel and the Jewish People, Geography of Israel, Mathematics and Hebrew Language. These subjects are actually a summary of elementary school studies. While the teaching methods have been suited to an older population, the content, itself, is mostly that is encountered by students in a regular elementary school.

The math curriculum includes the following topics: Numbers and addition, Basic concepts in Geometry, Subtraction, Multiplication, Division, Fractions, Percentages, Equations, Exponents, Use of formulas.

"The State of Israel and the Jewish People" curriculum is designed to provide the student with basic information concerning the modern history of the Jewish people, the history of the State of Israel, and the structure of Israel's system of government. The goal is to strengthen the ties between the soldier and his people and land, and to increase his involvement as a citizen of Israel.

The geography curriculum includes topics in physical geography (climate, landscapes etc.), and in the geography of man (types of habitation etc.) The central idea of the curriculum is the perception of geography as a system of physical and human elements and their mutual relationships. The Nature curriculum provides basic information concerning the human body. This topic is of great interest to the soldiers. The Bible curriculum emphasizes the ties between the Jewish people and the Land of Israel and God, laws concerning the relations between man and his fellow-being, and the moral teachings of the prophets.

Service Preparation Course or "The IDF and the Security of Israel" The purpose of this course is to prepare the soldier for a meaningful military service in the IDF. It includes lessons, field trips, and other activities.

The underlying assumption of the "Service Preparation" program, is that a higher degree of familiarity with the large framework which the soldiers have recently joined, may increase their motivation to serve in this framework. The program does not restrict itself to familiarizing the soldiers with the army, but also deals with the characteristics of Israel as a democratic state. The emphasis is on the army as an army of a democratic country.

APPENDIX D: DESCRIPTION OF DATA EXTRACTION FORMS OF STUDY1

The form contained four main parts:

a. General data: service number, draft date, expected discharge date, actual discharge date, reason for discharge.

b. For each of the soldier's MOS details concerning training records, dates of entrance to MOS (if he was stationed in a unit with this MOS)

c. Service parameters: MOS survival, number of courses, number of failures, number of MOS, number of units, and number of discipline incidents.

d. For each MOS, service time was divided into two periods of time pre- and actual. Pre MOS time was defined as the time in which the soldier was designated for an MOS but has still not entered it (due to training etc.). Actual MOS time was defined as the period of time beginning at the date in which the soldier was stationed in a unit with his MOS and ending in the point of time in which an indication was obtained that the soldier will no longer serve in this MOS. This indication represents the beginning of the next pre MOS time. For each of these periods, time was divided into 5 categories: Training periods, periods of discipline incidents, periods of effective service and periods of other time. Training periods was time spent in military courses of all kinds (basic training, professional MOS courses, and education completion courses and civilian job training). Periods of discipline incidents were defined as periods in which the soldier was absent without leave, deserted detained or imprisoned. effective service periods were defined as periods of time in which the soldier was stationed in a unit serving in his MOS.

Other periods included time waiting to be stationed, moving between units, hospitalizations, special leaves etc.

APPENDIX E: ADJUSTMENT INDICATORS MEANS AND STANDARD DEVIATIONS PRESENTED BY GROUP AND MOS

The following tables present means and standard deviations of each MOS by group cell for each of the adjustment indicators used in the research.

Table 1
Mean rates and standard deviation of maladjustment discharge by MOS and group

	Makam		Kabag		Mahva		Low Kaba		Med Kaba	
	M	SD	M	SD	M	SD	M	SD	M	SD
TSK	0.25	0.44					0.10	0.32	0.07	0.26
Building maintenance	0.32	0.47					0.27	0.22	0.10	0.30
HME	0.34	0.47					0.06	0.25	0.06	0.23
Automotive Electricians	0.25	0.43					0.13	0.34	0.08	0.27
Automotive Mechanics	0.15	0.36			0.27	0.45	0.09	0.29	0.04	0.22
SSP	0.27	0.45			0.20	0.40	0.19	0.39	0.06	0.49
Drivers					0.31	0.47	0.11	0.32	0.17	0.38
Guards			0.07	0.27						

Table 2
Mean Rates and standard deviations of non entrance to designated MOS by MOS and group

	Makam		Kabag		Mahva		Low Kaba		Med Kaba	
	M	SD	M	SD	M	SD	M	SD	M	SD
TSK	0.02	0.14					0.00	0.00	0.08	0.28
Building maintenance	0.03	0.17					0.07	0.20	0.09	0.30
HME	0.00	0.00					0.08	0.28	0.05	0.23
Automotive Electricians	0.04	0.21					0.07	0.20	0.04	0.19
Automotive Mechanics	0.00	0.00			0.18	0.39	0.02	0.13	0.02	0.15
Drivers					0.37	0.48			0.21	0.41
Guards			0.00	0.00						

* SSP's figures not shown since all SSPs enter automatically their MOS.

Table 3
Mean Rates and standard deviations of "complete" designated MOS survivors by MOS and group

	Makam		Kabag		Mahva		Low Kaba		Med Kaba	
	M	SD	M	SD	M	SD	M	SD	M	SD
TSK	0.50	0.50					0.70	0.46	0.77	0.45
Building maintenance	0.38	0.49					0.48	0.51	0.76	0.43
HME	0.32	0.47					0.65	0.48	0.66	0.47
Automotive Electricians	0.41	0.49					0.71	0.46	0.78	0.42
Automotive Mechanics	0.50	0.50			0.21	0.41	0.70	0.46	0.83	0.37
SSP	0.40	0.49			0.64	0.48	0.69	0.46	0.60	0.49
Drivers					0.47	0.50	0.74	0.44	0.63	0.48
Guards			0.70	0.47						

Table 4
Mean and standard deviations of designated MOS ratios by MOS and group

	Makam		Kabag		Mahva		Low Kaba		Med Kaba	
	M	SD	M	SD	M	SD	M	SD	M	SD
TSK	0.64	0.31					0.70	0.37	0.83	0.30
Building maintenance	0.49	0.30					0.69	0.32	0.75	0.35
HME	0.45	0.29					0.68	0.35	0.78	0.28
Automotive Electricians	0.46	0.32					0.80	0.34	0.80	0.32
Automotive Mechanics	0.59	0.31			0.36	0.32	0.74	0.32	0.92	0.22
SSP	0.48	0.31			0.71	0.31	0.75	0.30	0.65	0.40
Drivers					0.76	0.32	0.72	0.30	0.70	0.34
Guards			0.72	0.32						

Table 5
*Means and standard deviations of MOS instability (number of MOS throughout service)
by MOS and group*

	Makam		Kabag		Mahva		Low Kaba		Med Kaba	
	M	SD	M	SD	M	SD	M	SD	M	SD
TSK	1.27	0.66					1.26	0.54	1.14	0.49
Building maintenance	1.52	0.86					1.29	0.66	1.19	0.68
HME	1.65	0.84					1.41	0.65	1.34	0.55
Automotive Electricians	1.45	0.95					1.19	0.40	1.14	0.35
Automotive Mechanics	1.30	0.98			1.54	0.56	1.19	0.44	1.11	0.33
SSP	1.38	0.84			1.26	0.48	1.19	0.40	1.38	0.60
Drivers					1.41	0.63	1.18	0.51	1.23	0.47
Guards			1.25	0.48						

Table 6
Means and standard deviations of discipline incidents by MOS and group

	Makam		Kabag		Mahva		Low Kaba		Med Kaba	
	M	SD	M	SD	M	SD	M	SD	M	SD
TSK	1.58	2.26					0.71	1.22	0.55	1.41
Building maintenance	2.47	2.60					2.14	1.76	1.71	1.95
HME	3.00	2.34					2.26	2.33	1.14	1.58
Automotive Electricians	2.50	2.29					1.61	1.96	1.22	1.76
Automotive Mechanics	2.17	2.64			2.42	2.18	1.73	2.04	0.69	0.97
SSP	2.48	2.41			1.94	2.02	1.58	2.04	0.75	1.01
Drivers					2.57	2.45	2.35	2.30	1.42	2.09
Guards			0.96	1.57						

Table 7
*Means and standard deviations of effective service ratio in all MOS by
MOS and group*

	Makam		Kabag		Mahva		Low Kaba		Med Kaba	
	M	SD	M	SD	M	SD	M	SD	M	SD
TSK	0.75	0.29					0.82	0.29	0.90	0.24
Building maintenance	0.69	0.34					0.77	0.30	0.81	0.30
HME	0.57	0.31					0.88	0.20	0.88	0.22
Automotive Electricians	0.66	0.37					0.85	0.27	0.84	0.25
Automotive Mechanics	0.82	0.28			0.70	0.35	0.83	0.27	0.98	0.07
SSP	0.70	0.38			0.78	0.28	0.84	2.35	0.90	0.24
Drivers					0.76	0.33	0.73	0.30	0.70	0.33
Guards			0.83	0.29						

Table 8
*Means and standard deviations of unit stability (number of units throughout service)
by MOS and group*

	Makam		Kabag		Mahva		Low Kaba		Med Kaba	
	M	SD	M	SD	M	SD	M	SD	M	SD
TSK	2.35	1.71					1.80	0.93	1.86	1.09
Building maintenance	1.88	0.91					1.55	0.89	1.57	0.81
HME	2.57	1.21					1.63	0.97	1.45	0.69
Automotive Electricians	2.40	1.49					2.15	1.13	2.16	1.18
Automotive Mechanics	1.88	1.06			1.84	0.76	1.58	0.89	1.43	0.73
SSP	1.75	0.98			1.62	0.85	1.76	0.87	1.75	0.82
Drivers					1.54	0.94	1.51	0.83	1.90	1.18
Guards			1.47	0.57						

Table 9
Means and standard deviations of 'decent service' by MOS and group

	Makam		Kabag		Mahva		Low Kaba		Med Kaba	
	M	SD	M	SD	M	SD	M	SD	M	SD
TSK	0.37	0.48					0.50	0.50	0.60	0.49
Building maintenance	0.17	0.38					0.25	0.44	0.47	0.51
HME	0.15	0.35					0.41	0.49	0.42	0.49
Automotive Electricians	0.22	0.42					0.48	0.50	0.56	0.50
Automotive Mechanics	0.30	0.46			0.15	0.36	0.37	0.48	0.69	0.46
SSP	0.19	0.39			0.40	0.49	0.47	0.50	0.47	0.50
Drivers					0.27	0.45	0.33	0.47	0.48	0.50
Guards			0.61	0.49						

APPENDIX F1: COMMANDERS EVALUATION ITEMS AND DISTRIBUTIONS

	Less then most soldiers			Like most soldiers			More then most soldiers			Not relevant
	1	2	3	4	5	6	7	8	9	0
22. Knows job rules and procedures	3	4	6	13	23	21	13	11	5	1
23. Proficiency and expertise in the equipment operated (Knowledge of how it works and problem shooting)	3	4	7	15	19	18	12	12	6	4
24. Able to perform a wide variety of tasks included in his job	4	4	8	14	18	15	13	11	6	7
25. Executes rapidly tasks laid upon him	4	5	9	15	16	15	15	10	9	2
26. Performs a high quality job (with no mistakes and faults)	4	5	8	16	17	16	13	12	7	2
27. Able to supervise other soldiers when necessary	7	5	7	11	10	8	7	7	4	34
28. Posses a theoretical job knowledge	6	5	8	14	18	12	8	8	4	17
29. General proficiency level	3	4	8	13	20	18	13	12	7	2
30. Puts effort into doing his job	4	5	8	14	16	18	11	13	11	0
31. Responsible (can be counted on to do his job unsupervised)	5	5	9	13	15	14	13	14	12	0
32. Aspires for excellence	7	5	10	14	14	14	12	13	11	0
33. General effort and devotion	5	6	8	14	15	15	12	16	9	0
34. Socially accepted by his peers	2	3	4	11	16	21	15	15	13	0
.35. Serves as a positive influence on his fellow soldiers	4	5	7	12	20	14	14	12	10	2
36. Helps others when necessary	4	4	5	12	18	15	13	15	13	1
37. General social adjustment level	3	3	6	12	19	17	15	15	12	0
38. Executes his commanders' commands fully and promptly	2	3	13	13	18	13	4	14	18	0
39. Shows respect to his commanders	2	2	5	8	13	19	13	15	23	0
40. Honest (gives truthful reports and not trying to "shortchange" his commanders)	4	5	6	9	14	18	12	13	20	0
41. Shows violent behaviors (e.g. command refusals, bad language, threats and physical violence)	33	10	10	10	8	8	5	3	3	10
42. Maintains a proper military appearance.	4	4	7	9	17	16	13	15	15	0
43. General discipline level	2	2	8	11	16	16	13	16	16	0

44. **Generally, how would you define the soldier in comparison to other soldier you know?**

1. terrible	2. very bad	3. bad	4. not good and not bad	5. good	6. very good	7. excellent
1	2	4	16	41	32	4

45. **How would you evaluate this soldier's contribution to the unit compared to most other soldiers in his MO?**

1. much less	2. less	3. the same	4. more	5. much more
4	12	42	33	9

46. **If it was possible, would you recommend to sign him for career service?**

9. don't know	1. certainly not	2. no	3. yes	4. certainly yes
5	20	30	29	16

APPENDIX F2: ITEMS AND FACTOR LOADINGS OF COMMANDER EVALUATION SCALE

PROFFICIENCY FACTOR

23. Proficiency and expertise in the equipment operated......................	.86
29. General proficiency level..................	.86
24. Able to perform a wide variety of tasks included in his job...............	.83
22. Knows job rules and procedures..............	.79
25. Executes rapidly tasks laid upon him.......	.79
26. Performs a high quality job (with no mistakes and faults).....................	.77
28. Posses a theoretical job knowledge..........	.75
27. Able to supervise other soldiers when necessary...............................	.74
31 .Responsible (can be counted on to do his job with no supervision)...............	.72
33. general effort and devotion level...........	.67
30. Puts effort into doing his job..............	.66
32. Aspires for excellence.......................	.65
45. General evaluation.........................	.57
46.Recommendation to sign him for career service....................	.56

SOCIAL FACTOR

37. general social adjustment level.............	.79
36. Helps others when necessary..................	.79
35. Serves as a positive influence on his fellow soldiers.......................	.74
34. Socially accepted.............................	.71
44. generally how would you define the soldier in comparison to other soldier you know.............................	.59

DISICIPLINE FACTOR

42. Maintains a good military appearance	.83
43. general discipline level.....................	.80
38. Executes his commanders commands fully and promptly...................	.63
39. Shows respect to his commanders...............	.62
40. Honest (gives truthful reports and not trying to "shortchange" his commanders....................................	.62

AGRESSION

41. Shows violent behaviors (such as: command refusals, bad language, threats and physical violence).

APPENDIX F3: GROUP DIFFERENCES ON COMMAMDERS EVALUATIONS

Table 1
Means and standard deviations of commander evaluation indexes by group and MOS

		Makam		Kabag		Mahva		LowKaba		MedKaba	
		M	SD	M	SD	M	SD	M	SD	M	SD
SSP	**PERF**	-.22	.80			.17	.91	-.19	.97	.35	.80
	SOC	-.15	.92			.13	1.01	-.17	1.11	.35	.85
	DIS	-.23	.96			.21	.92	-.21	1.03	.33	.84
	CO41	-.05	.96			-.15	1.08	.09	1.01	.02	1.07
	COMP	-.20	.78			.16	.85	-.18	.93	.34	.76
Drivers	**PERF**					.22	.83	-.00	.84	.28	.71
	SOC					.14	.88	-.10	.82	.29	.70
	DIS					-.10	.96	-.08	.92	.22	.83
	CO41					-.00	1.03	-.00	.99	.04	1.03
	COMP					.13	.82	-.05	.79	.27	.67
TSK	**PERF**	-.17	.78				•			.10	.83
	SOC	-.02	.98							.02	.89
	DIS	-.07	.93							.14	.84
	CO41	.24	.94							.18	.92
	COMP	-.12	.77							.10	.78
Building maintenance	**PERF**	-.30	.74								
	SOC	-.20	.84								
	DIS	-.33	.75								
	CO41	-.28	.94								
	COMP	-.30	.70								
Automotive Maintenance	**PERF**	-.60	.98					-.25	.86	.05	.92
	SOC	-.41	1.05					-.12	.87	.05	.94
	DIS	-.49	1.10					-.18	.86	.07	.86
	CO41	-.19	1.06					-.03	.91	-.02	1.06
	COMP	-.52	.92					-.22	.78	.05	.85
Guards*	**PERF**			-20	.91					.07	.93
	SOC			-.16	1.00					-.08	1.01
	DIS			-.03	.99					.08	1.01
	CO41			.06	.97					.00	1.10
	COMP			-.14	.89					.04	.90

PERF= PROFICIENCY
SOC= SOCIAL ADJUSTMENT
DIS= DISCIPLINE
CO41= AGGRESSION
COMP= COMPOSITE INDEX
*Collapsed Low and Med Kaba groups

Table 2

Means and standard deviations of commanders evaluation indexes by group

	Makam		Kabag		Mahva		Low Kaba		Med Kaba		Group ME	
	M	SD	M	SD	M	SD	M	SD	M	SD	F	df
Perf	-0.32	0.84	-0.20	0.91	0.20	0.87	-0.15	0.89	0.18	0.84	9.45***	4,848
Soc	-0..22	0.96	-0.16	1.01	0.13	0.95	-0.13	0.92	0.14	0.89	5.11***	4,835
Dis	-0.27	0.95	-0.03	0.99	0.07	0.95	-0.15	0.93	0.18	0.87	6.87***	4,821
Agg	-0.10	0.97	0.06	0.97	-0.08	1.06	0.02	0.97	0.03	1.03	NS	
Com	-0.28	0.81	-0.15	0.89	-0.15	0.83	-0.14	0.83	0.17	0.80	8.56***	4,835

Perf= Proficiency index
Soc= Social adjustment
Dis= Discipline index
Agg= Aggression index
Comp= Composite index

APPENDIX G1: SOLDIERS SUBJECTIVE ADJUSTMENT ITEMS AND DISTRIBUTIONS

9. In general, how satisfied are you with your military service

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
12	18	26	29	15

10. How satisfied are you with the job you do?

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
14	16	14	31	25

11. How satisfied are you with your unit?

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
15	14	19	29	23

12. How satisfied are you with your direct commander?

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
7	10	13	26	44

13. If service in the IDF was not compulsory what would you do?

1=would not volunteer at all	29
2=volunteer for one year;	24
3=volunteer for two years;	30
4=volunteer for three years	17

14. How important it is for you to do well in the military?

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
10	18	14	22	36

15. If it was possible, would you like to released now from service?

1. definitely yes	2. yes	3. no	4. definitely no	9. don't know
30	20	20	21	9

16. Do you agree that responsibility should be avoided as much as possible?

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
30	23	27	9	11

17. Do you agree that soldiers who try hard in the military are "suckers"?

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
40	26	20	5	9

20. Is the job you are currently doing interesting?

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
24	17	17	25	17

21.   **Is the job you are currently doing contributes to the IDF?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
10	9	16	28	37

22.   **How much responsibility your job demands?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
5	6	16	27	46

23.   **DO you think that the job you are currently doing is suitable to your skills?**

1= yes   40
2= no, I am over qualified for the job   53
3= no, I am under qualified for the job   7

27.   **If it was possible would you have liked to be transferred to another unit?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
30	22	11	15	22

28.   **Are you proud to be part of your unit?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
14	0	35	28	23

29.   **Do you feel that you are a part of the unit?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
11	9	15	34	31

30.   **How do you get along with the other soldiers in your unit?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
3	3	7	25	62

31.   **Are you satisfied with the way your personal problems are taken care of in your unit?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much	9. I don't have problems
20	17	16	25	17	4

32.   **How satisfied are you with your conditions of service?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
14	19	18	27	22

33.   **How satisfied are you with your rate of leaves?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
11	12	13	28	36

34. **Does your commander help you to do your job well (explains, teaches, and tries to help).**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
7	8	15	25	45

35. **Does your commander understands your personal problems and tries to help you?**

1.not at all	2. not quite	3. yes & no	4. quite	5. very much
4	7	20	26	43

36. **How would you describe your personal relations with your commander?**

1. very bad	2.quite bad	3. not bad and not good	4. quite good	5. very good
4	4	22	36	34

APPENDIX G2: FACTORS AND FACTOR LOADINGS OF SUBJECTIVE ADJUSTMENT ITEMS

COMMANDER FACTOR

36. How would you describe your personal relations with your commander?	.85
35. Does your commander understands your personal problems and tries to help you?	.83
34. does your commander help you to do your job well (explains, teaches,	.81
12. How satisfied are you with your direct commander?	.78

CONDITIONS OF SERVICE FACTOR

32. How satisfied are you with your conditions of service?	.77
33. How satisfied are you with your rate of leaves?	.73
31. Are you satisfied with the way your personal problems are taken care of in your unit?	.67
11. How satisfied are you with your unit?	.58

SATISFACTION WITH MOS FACTOR

21. Is the job you are currently doing contributes to the IDF?	.79
20. Is the job you are currently doing interesting?	.76
22. How much responsibility your job demands?	.71
10. How satisfied are you with the job you do?	.64
23. Do you think that the job you are currently doing is suitable to your skills?	.62

EFFORT ATTITUDES FACTOR

16. Do you agree that responsibility should be avoided ("tiny head" in Hebrew slang);	.78
17. do you agree that soldiers who try hard in the military are "suckers"?	.76
14. how important it is for you to do well in the military?	.56

SATISFACTION WITH UNIT FACTOR

27. If it was possible would you have liked to be transferred to another unit?	.67
30. How do you get along with the other soldiers in your unit?	.65
29. Do you feel that you are a part of the unit?	.56
28. Are you proud to be part of your unit?	.52

SERVICE ATTITUDES FACTOR

15. If it was possible, would you like to be released now from service?	.85
13. If service in the IDF was not compulsory what would you do?	.59

GENERAL SATISFACTION ITEM

9. In general, how satisfied are you with your military service

Table 2
Means and standard deviations of subjective adjustment by group

	Makam		Kabag		Mahva		Low Kaba		Med Kaba		Group ME	
	M	SD	M	SD	M	SD	M	SD	M	SD	F	df
MO	0.19 a	0.74	-0.33 b	0.69	0.22 a	0.80	0.07 ab	0.71	-0.14 b	0.76	4.34**	4,613
COM	0.18	0.83	-0.30	0.88	0.20	0.75	-0.13	0.94	-0.01	0.90	2.48*	4,613
UNIT	0.19	0.73	-0.04	0.76	0.12	0.80	-0.08	0.82	-0.04	0.78	NS	
COND	0.23 a	0.73	0.07 ab	0.89	0.09 ab	0.90	-0.16 b	0.88	-0.02 ab	0.79	2.43*	4,613
SRV	0.00	0.86	0.18	0.79	0.02	0.91	-0.03	0.90	-0.02	0.87	NS	
EFF	0.01	0.81	0.00	0.61	0.12	0.80	0.09	0.77	-0.07	0.80	NS	
SAT	0.21	0.99	0.00	0.91	0.24	1.04	-0.03	1.00	-0.08	0.98	NS	
SCOMP	0.13	0.55	-0.07	0.55	0.13	0.64	-0.04	0.58	-0.05	0.61	NS	

MO= SATISFACTION WITH MOS
COM= SATISFACTION WITH COMMANDER
UNIT= SATISFACTION WITH UNIT
COND= SATISFACTION WITH CONDITIONS OF SERVICE
SRV= SERVICE ATTITUDES
EFF= EFFORTS ATTITUDES
SAT= GENERAL SATISFACTION ITEM
SCOMP= COMPOSITE STUDY
$* p < .05$ $** p < .01$ $*** p < .001$
Note. Means having different subscripts differ with significance levels ranging from $p < .05$ to $p < .001$ (Tukey's studentized range test)

APPENDIX G3: GROUP DIFFERENCES IN SUBJECTIVE ADJUSTMENT

Table 1
Means and standard deviations of subjective adjustment indexes by group and MOS

		Makam		Kabag		Mahva		Low Kaba		Med Kaba	
		M	SD	M	SD	M	SD	M	SD	M	SD
SSP	**COM**		0.50			0.18	0.78	-0.09	0.89	0.05	0.84
	COND	0.16	0.71			0.14	0.91	-0.09	0.92	0.05	0.79
	MO	0.07	0.89			0.09	0.91	-0.26	0.85	-0.19	0.82
	EFF	-0.05	0.80			-0.04	0.99	0.0	0.86	-0.03	0.77
	SRV	0.07	1.00			-0.04	0.98	-0.28	0.80	0.04	0.95
	SCOMP	0.10	0.52			0.06	0.71	-0.14	0.62	-0.04	0.64
	SAT	-0.22	1.07			0.15	1.15	-0.15	1.05	0.0	1.05
	UNIT	-0.14	0.57			0.04	0.93	0.0	0.79	-0.10	0.80
Drivers	**COM**					0.22	0.72	0.05	0.89	0.29	0.83
	COND					0.04	0.90	-0.15	0.92	0.04	0.82
	MO					0.34	0.67	0.23	0.56	0.04	0.67
	EFF					0.27	0.78	0.08	0.82	0.0	0.89
	SRV					0.07	0.85	0.09	0.97	-0.04	0.87
	SCOMP					0.19	0.57	0.02	0.58	0.08	0.57
	SAT					0.33	0.94	0.06	1.02	0.0	0.93
	UNIT					0.20	0.65	-0.10	0.89	0.16	0.70
TSK	**COM**	0.16	0.87							-0.17	0.89
	COND	0.19	0.75							-0.07	0.85
	MO	1.19	0.66							-0.35	0.71
	EFF	0.0	0.77							-0.22	0.77
	SRV	-0.11	0.82				•			-0.04	0.78
	SCOMP	0.10	0.55							-0.18	0.61
	SAT	0.26	0.84							-0.18	0.94
	UNIT	0.18	0.73							-0.10	0.82
Building maintenance	**COM**	0.36	0.83								
	COND	0.39	0.70								
	MO	0.24	0.67								
	EFF	0.21	0.77								
	SRV	0.12	0.83								
	SCOMP	0.29	0.56								
	SAT	0.51	0.99								
	UNIT	0.40	0.70								
Automotive Maintenance	**COM**	-0.09	0.87					-0.24	1.03	-0.15	0.98
	COND	0.20	0.75					-0.22	0.82	-0.04	0.78
	MO	0.24	0.81					0.13	0.70	0.13	0.75
	EFF	-0.07	0.91					0.17	0.70	0.03	0.74
	SRV	0.03	0.88					0.0	0.87	0.0	0.86
	SCOMP	0.10	0.56					-0.04	0.56	0.0	0.63
	SAT	0.19	1.08					-0.05	0.97	-0.06	1.00
	UNIT	0.25	0.78					-0.05	0.78	0.05	0.74
Guards*	**COM**			-0.30	0.88					-0.10	0.93
	COND			0.07	0.89					-0.17	0.67
	MO			-0.33	0.69					-0.50	0.67
	EFF			0.0	0.60					-0.17	0.85
	SRV			0.18	0.79					-0.08	0.96
	SCOMP			-0.07	0.59					-0.20	0.54
	SAT			0.01	0.90					-0.19	0.95
	UNIT			-004	0.76					-0.18	0.89

COM= SATISFACTION WITH COMMANDER
COND= SATISFACTION WITH CONDITIONS OF SERVICE
MO= SATISFACTION WITH MOS
EFF= EFFORT ATTITUDES
SRV= SERVICE ATTITUDES
SCOMP= COMPOSITE INDEX
SAT= GENERAL SATISFACTION ITEM
UNIT= SATISFACTION WITH UNIT
*Collapsed Low and Med Kaba groups

APPENDIX H1: JOB CHARACTERISTICS ITEMS AND DISTRIBUTIONS (FROM COMMANDER'S QUESTIONAIRE)

13. **How heavy is the work load laid on the soldier doing the job?**

1. very light	2. quite light	3. medium	4. quite heavy	5. very heavy
3	8	56	27	6

14. **Is the job the soldier doing is done under tight supervision?**

1. works alone all the time	2. works alone most of the time	3. supervised most of the time	4. supervised all the time
2	42	48	8

15. **To what extent the job the soldier is doing is routine?**

1. very diverse	2. quite diverse	3. sometimes diverse sometimes routine	4. quite routine	5. very routine
1	5	26	51	17

16. **How often is the soldier demanded to work in irregular hours (outside office hours)?**

1. very seldomly	2. quite seldomly	3. quite often	4. very often
23	36	25	16

17. **How often is the soldier demanded to supervise other soldiers?**

1. never	2. seldomly	3. often	4. all the time
50	32	13	5

APPENDIX H2: GROUP DIFFERENCES IN JOB CHARACTERISTICS

The following sections present the results of a series of two-way ANOVAs. In each ANOVA a disadvantaged group was compared to soldiers from other groups in similar MOS on each job characteristic.

MAKAM Vs MEDKABA

Two way ANOVA for MAKAM MOS, in which groups (MAKAM,MEDKABA) and MOS (SSP, TSK, automotive maintenance) were independent variables and the 5 job characteristics were the dependent variables, was conducted. Group main effects were found for work in irregular hours ($F(1,349)=8.82,p<.001$) and supervision of others ($F(1,349)=14.16,p<.001$.) Means show that MEDKABA ($M=2.27$) work more in irregular hours than MAKAM ($M=1.94$) and MEDKABA ($M=1.98$) supervise others more than MAKAM soldiers ($M=1.58$) in same MOS.

A Group by MOS interaction was found on workload ($F(2,350)=4.40,p<.05$): MAKAM SSP ($M=3.00$) and MAKAM automotive maintenance ($M=2.97$) were significantly lower than MEDKABA SSP and automotive maintenance ($M=3.40$, $M=3.48$ respectively). However MAKAM TSK ($M=3.22$) did not differ significantly from MEDKABA TSK ($M=3.14$)

MAHVA Vs MEDKABA

Two way ANOVA for MAHVA MOS, in which groups (MAHVA,MEDKABA) and MOS (SSP, drivers) were independent variables and the 5 job characteristics were the dependent variables was conducted. Significant main effect for groups was obtained only for work in irregular hours ($F(1,255)=7.55,p<.001$). Means show that MAHVA soldiers ($M=2.82$) tend to work more in irregular hours than MEDKABA ($M=2.51$).

LOW KABA Vs MEDKABA

Two way ANOVA for LOW KABA MOS, in which groups (LOW KABA,MEDKABA) and MOS (SSP, drivers, automotive maintenance) were independent variables and the 5 job characteristics were the dependent variables was conducted. Significant main effect for groups was obtained for closeness of supervision ($F(1,422)=4.13,p<.05$), and for supervision of others ($F(1,424)=4.34$,$p<.001$). Means show that LOW KABA ($M=2.75$) are being more closely supervised than MEDKABA in the same MOS ($M=2.61$). They also show that LOW KABA do less supervision of others ($M=1.66$) then MEDKABA ($M=1.90$).

KABAG Vs OTHER GUARDS

KABAG guards job characteristics are no different than those of other guards.

DIFFERENCES BETWEEN DISADVANTAGED GROUPS

MAHVA SSP work more in irregular hours than MAKAM SSP (f(1,83)=4.41 ,p<0.05) and supervise other more often than MAKAM SSP (F(1,82)=4.69 ,p<0.05).

MAHVA soldiers tend to be less closely supervised (M=2.50) then their LOW KABA counterparts (M=2.69). (F(1,224)=4.31,p<.05).

MAKAM soldiers tend less (M=1.54) to supervise others than their LOW KABA counterparts (M=1.84) (F(1,187)=6.00,p<.001).

APPENDIX I1: UNIT AND SUB UNIT CHARACTERISTICS ITEMS AND DISTRIBUTIONS

SUBUNIT HARDSHIPS

15. How heavy is the work load in the sub unit?

1. very light	2. quite light	3. medium	4. quite heavy	5. very heavy
8	42	39	10	1

17. How often is the sub unit demanded to work in irregular hours (outside office hours)?

1. very seldomly	2. quite seldomly	3. quite often	4. very often
17	37	28	18

19. How severe is the discipline in the sub unit?

1. very loose	2. quite loose	3. medium	4. quite sever	5. very severe
2	9	48	36	5

22. How would you describe the physical conditions in the sub unit (crowding, noise, heat and dust)?

1. very uncomfortable	2. quite uncomfortable	3. medium	4. quite comfortable	5. very comfortable
5	17	28	40	10

MANPOWER QUALITY ENVIRONMENT

18. How would you define the quality of manpower in the sub unit?

1. all law quality	2. most are low quality	3. half low half high	4. most high quality	5. all high quality
3	32	42	20	3

20. How many disciplinary problems occur in the sub unit?

1. a lot	2.quite a lot	3.meduim	4. quite few	5. very few
1	7	20	31	40

21. How would you evaluate the social cohesion in the unit?

1.very low	2. quite low	3. medium	4. quite high	5. very high
2	9	47	36	6

13. How would you define the quality of manpower in the unit?

1. all law quality	2. most are low quality	3. half low half high	4. most high quality	5. all high quality
0	20	45	32	3

15. **How many disciplinary problems occur in the unit?**

1. a lot	2. quite a lot	3.meduim	4. quite few	5. very few
1	7	26	36	30

BASE FEATURES

9. **Is the unit open or closed?**   1. closed   2. open

    43   57

10. **Is the unit stationed front zone or rare zone?**   1. front zone   2. rear zone

    37   63

11. **How far is the unit's base from a large urban center?**

4. more than one hour drive	3. 30-60 minutes drive	2. 15-30 minutes drive	1. less than 15 minutes drive
5	15	24	55

12. **Is the unit base situated within a larger military complex?**   1. yes   2. no

    35   65

APPENDIX I2: DIFFERENCES BETWEEN THE GROUPS ON UNIT CHARACTERISTICS

The following sections present the results of a series of two-way ANOVAs. In each ANOVA a disadvantaged group was compared to soldiers from other groups in similar MOS on each unit characteristic.

MAKAM Vs MEDKABA

Two way ANOVA for MAKAM MOS, in which groups (MAKAM,MEDKABA) and MOS (SSP, TSK, automotive maintenance) were independent variables, and the 3 unit characteristics were the dependent variables, was conducted. Group main effects were found for base features ($F_{(2,252)}=21.51$,$p<.001$.) and manpower environment ($F_{(2,268)}=17.91$,$p<.001$.)

Means show that MAKAM serve in more comfortable bases (M=5.61) compared to MEDKABA soldiers (M=4.88). MAKAM soldiers also serve in bases with lower manpower quality (M=3.25) compared to MEDKABA soldiers (M=3.53) in the same MOS. No differences were found for subunit hardships.

MAHVA Vs MEDKABA

Two way ANOVA for MAHVA MOS, in which groups (MAHVA,MEDKABA) and MOS (SSP, drivers) were independent variables and the 3 unit characteristics were the dependent variables was conducted.

Significant main effect for groups was obtained for base features ($F_{(1,195)}=6.12$,$p<.001$) and for subunit hardships ($F_{(1,207)}=3.74$,$p<0.05$). Means show that MAHVA soldiers (M=4.45) serve in less comfortable base features compared to MEDKABA (M=4.89). For subunit hardships MAHVA soldiers work under tougher conditions (M=1.84) compared to MEDKABA in the same MOS (M=1.54).

LOW KABA Vs MEDKABA

Two way ANOVA for LOW KABA MOS, in which groups (LOW KABA,MEDKABA) and MOS (SSP, DRIVERS, automotive maintenance) were independent variables and the 3 unit characteristics were the dependent variables was conducted. Significant main effect for groups were not found for any unit characteristics.

KABAG Vs OTHER GUARDS

as can be seen in table 30 KABAG guards serve in more comfortable bases (M=5.84) then other guards (M=5.18) and in bases with better manpower quality (M=3.49) then other guards (M=3.14).

DIFFERENCES BETWEEN DISADVANTAGED GROUPS

MAHVA SSP are stationed in less comfortable bases (M=4.30) than MAKAM SSP (M=5.66) (F(1,62)=28.14,p<0.001) and better manpower quality (M=3.38) than MAKAM SSP (M=3.04) (F(1,69)=5.44,p<0.05). MAHVA SSP serve under tougher subunit conditions (M=1.56) compared to MAKAM SSP (M=0.96) (F(1,69)=4.00,p<0.05).

MAHVA soldiers do not differ from LOW KABA in the same MOS on any of the unit characteristics.

MAKAM soldiers serve in more comfortable bases (M=5.54) compared to LOW KABA in the same MOS (M=4.55) (F(1,135)=23.74,p<0.001). MAKAM serve in bases with lesser manpower quality (M=3.06) than LOW KABA (M=3.52) (F(1,147)=25.19,p<0.05). And finally MAKAM serve in subunits with less hardships (M=1.11) than LOW KABA (M=1.71) (F(1,147)=9.40,p<.001).

APPENDIX J1: CONDITIONS OF SERVICE ITEMS AND DISTRIBUTIONS

18. **Is the soldier required to do extra duties (e.g. kitchen duty, guard duties etc.)?**

1. never	2. once in few months	3. once a month	4. once in 2-3 weeks	5. once a week	6. few times a week
27	11	5	11	32	14

19. **Is the soldier stationed close to home?**   1. yes   2. no

1. yes	2. no
67	33

20. **What is the soldiers rate of leaves?**

1. week on week off	2. every day	3. few times a week	4. each weekend	5. stays each fortnight	6.satys once in 3-4 weeks
17	42	15	11	5	10

21. **Does the soldier get special concessions compared to other soldiers in the sub unit (e.g.: to come late or leave early, days off, excused from duties)?**

1. like every body else	2. a little more than everybody	3. much more than everybody
73	20	7 .

APPENDIX J2: DIFFERENCES BETWEEN THE GROUPS ON CONDITIONS OF SERVICE

Table 1 present group by MOS means and whole sample means of the conditions of service items and index.

Table 1
Means of conditions of service items and index by group and MOS

		Makam	Kabag	Mahva	Low Kaba	Med Kaba	F	df
SSP	COND	1.55		2.0	1.75	1.85		
	DUTIE	0.55		0.44	0.40	0.53		
	CLOSE	0.07		0.55	0.49	0.33		
	LEAVE	0.18		0.28	0.22	0.26		
	SPEC	0.74		0.73	0.64	0.70		
Drivers	COND			2.33	2.27	1.93		
	DUTIE			0.44	0.45	0.39		
	CLOSE			0.40	0.42	0.26		
	LEAVE			0.75	0.61	0.53		
	SPEC			0.73	0.77	0.75		
TSK	COND	2.00				2.75		
	DUTIE	0.85				0.84		
	CLOSE	0.08				0.40		
	LEAVE	0.36				0.62		
	SPEC	0.75				0.87		
Building maintenance	COND	1.45						
	DUTIE	0.65						
	CLOSE	0.08						
	LEAVE	0.08						
	SPEC	0.62						
Automotive Maintenance	COND	1.78			2.81	2.48		
	DUTIE	0.56			0.78	0.74		
	CLOSE	0.18			0.57	0.46		
	LEAVE	0.27			0.71	0.58		
	SPEC	0.76			0.74	0.69		
Guards	COND		1.48		1.46			
	DUTIE		0.28		0.15			
	CLOSE		0.34		0.40			
	LEAVE		0.02		0.13			
	SPEC		0.82		0.77			
Whole sample	COND	1.75 a	1.48 a	2.13 b	2.28 b	2.15 b	7.17***	4.835
	DUTIE	0.68 d	0.28 a	0.43 ab	0.54 bc	0.57 cd	5.75***	4.829
	CLOSE	0.13 a	0.38 b	0.48 bc	0.51 c	0.38 b	16.8***	4.831
	LEAVE	0.27 b	0.02 a	0.48 c	0.52 c	0.45 c	12.60***	4.831
	SPEC	0.68	0.81	0.74	0.72	0.75	1.28	4.831

COND= COMPOSITE CONDITIONS OF SERVICE INDEX
DUTIE= DOING EXTRA DUTIES
CLOSE= SERVING AWAY FROM HOME
LEAVE= LOW RATE OF LEAVES
SPEC= NOT GETTING SPECIAL CONCCESSIONS
*** $p < .001$
Note. Means having different subscripts differ with significance levels ranging from $p < .05$ to $p < .001$ (Tukey's studentized range test)
Note. For each variable higher figure refers to tougher conditions

The results for the whole sample showed that MAKAM and KABAG soldiers serve with the easiest conditions of service, other groups not differing from each other.

Looking at the means for each item, it seems that MAKAM do more extra duties than others (apart from MEDKABA), however they serve close to home more than all other groups. They get also better leaves than all other groups apart from KABAG.

KABAG soldiers get the best leaves (a separate analysis showed that this is a result of a week on week off service for guards in general). KABAG soldiers also do the least extra duties (apart from MAHVA).

MAHVA soldiers get worse leaves than MAKAM and KABAG, tend to serve away from home but are not high on extra duties.

LOW KABA seem to serve in harder conditions of service: they are high on extra duties (but not more than MAKAM) they serve more away from home (apart from MAHVA), and get worse leaves than MAKAM and KABAG. The groups did not differ significantly on getting extra concessions. In general these results indicate that MAKAM and KABAG get the best service conditions.

In order to find out whether these group differences hold when soldiers in similar MOS are compared we conducted the ANOVAs reported in the following sections.

MAKAM Vs MEDKABA

Two way ANOVA for MAKAM MOS with group (MAKAM,MEDKABA) and MOS (SSP, TSK, automotive maintenance) was conducted on the cumulative index. Main effects were obtained for both group ($F(1,335)=21.97, p<0.001$) and MOS ($F(1,335)=9.56, p<0.001$). MAKAM (M=2.18) serve in easier service conditions than MEDKABA (M=1.67) in the same MOS. Main effects for group were obtained also for serving closer to home ($F(1,335)=30.12, p<0.001$) (MAKAM M=0.88, MEDKABA M=0.60) and rates of leaves ($F(1,335)=15.96, p<0.001$) (MAKAM M=0.71, MEDKABA M=0.52). No main effects for group were found for extra duties or getting extra benefits. No group by MOS interaction was found.

MAHVA Vs MEDKABA

Two way ANOVA for MAHVA MOS with group (MAHVA,MEDKABA) and MOS (SSP, drivers) was conducted on the cumulative index, and each of the service condition items.

Main effects were obtained for group ($F(1,247)=4.847, p<0.05$) on the cumulative index. MAHVA (M=1.84) serve in harder service conditions than MEDKABA (M=2.11) soldiers in the same MOS. Main effects for group were obtained also for serving closer to home ($F(1,247)=8.01, p<0.01$) and rates of leaves ($F(1,247)=4.11, p<0.001$), both these effect indicated worse service conditions for MAHVA: MAHVA soldiers serve less closer to home (M=0.52) than MEDKABA soldier (M=0.69) and they also get a worse rate of leaves (M=0.50) than MEDKABA soldiers (M=0.62). No main effects for groups on extra duties or special concessions were found. NO group by MOS interaction was found.

LOW KABA Vs MEDKABA

Two way ANOVA for LOW KABA MOS with group (LOW KABA,MEDKABA) and MOS (SSP, drivers, automotive maintenance) was conducted on the cumulative index and for each of the service condition items.

Main effects were obtained for group $(F(1,408)=4.847, p<0.05)$ only on serving close to home. LOW KABA (M=0.50) serve less than MEDKABA (M=0.64) soldiers close to home.

KABAG Vs OTHER GUARDS

As can be seen in table 1 there are no significant differences between KABAG guards and other guards.

DIFFERENCES BETWEEN DISADVANTAGED GROUPS

MAKAM v MAHVA (SSP): main effect was found for groups on the cumulative index $(F(1,81)=4.06, p<0.05)$ and for serving close to home $(F(1,181)=21.62, p<0.001)$. For both these effects, MAKAM soldiers (Mindex=2.44, Mclose to home=0.93) had better conditions than MAHVA (Mindex=1.98, Mclose to home=0.44).

MAKAM Vs LOW KABA (SSP and automotive maintenance): Group by MOS interactions were found for the cumulative index $(F(1,178)=5.02, p<0.05)$ for extra duties $(F(1,178)=6.01, p<0.05)$ and rate of leaves $(F(1,178)=8.46, p<0.05)$. For all these, no differences were obtained between MAKAM and LOW KABA SSP, while MAKAM automotive maintenance had easier conditions than LOW KABA automotive maintenance (see table 1 for cell means).

Main effect for groups was obtained for serving closer to home $(F(1,178)=31.96, p<0.001)$ where MAKAM (M=0.85) serve close to home than LOW KABA (M=0.45).

MAHVA Vs LOW KABA (SSP and drivers): NO group main effect or group by MOS interactions were found - MAHVA and LOW KABA soldiers n the same MOS do not differ in conditions of service.

In summary , the results clearly show MAKAM soldiers get better conditions of service in terms of service close to home (more than all other comparable groups) rate of leaves and overall conditions (more than all comparable groups apart from LOW KABA SSP). They do not differ, however, on getting extra concessions and extra duties.

MAHVA soldiers serve in harder service conditions that MEDKABA but not more than LOW KABA soldiers. LOW KABA soldiers in turn differ from their MEDKABA counterparts only in that they serve less close to home.

KABAG soldier do not differ from other guards on conditions of service.

APPENDIX K1:CIVILIAN EMPLOYMENT PROSPECTS ITEMS AND DISTRIBUTION

25.   **Would you like to work in an occupations similar to your MOS in the civilian world?**

    1. yes   2. may be   3. no
     51   13   36

26.   **Do you think that the MOS you are currently practicing can help you get a job in the civilian world?**

    3. it will help a lot   2. it will help a little   1. it will not help at all
        34   35   31

APPENDIX K2: GROUP DIFFERENCES IN PERCEPTION OF CIVILIAN PROSPECTS

The two items were highly correlated ($r=.56$). One way ANOVA of MOS by each of the civilian prospects items is presented in table 1. The table shows that automotive maintenance, drivers and building maintenance would like to do a similar job on the outside more than TSK, SSP and guards. SSP and guards also believe less than all other MOS that their MOS will help them get a job on the outside. Finally, drivers and automotive maintenance MOS have the highest civilian prospects for the soldiers (although not differing significantly from building maintenance.

Table 1
Means of civilian employment prospects items by MOS

	SSP	Drivers	TSK	Building maintenance	Automotive maintenance	Guards	F	df
Want to work in similar occupation	1.55 b	1.95 a	1.57 b	2.00 a	2.07 a	1.27 b	14.46***	5,609
MOS will help get a job	1.61 c	2.31 ab	2.04 b	2.11 ab	2.40 a	1.48 c	26.77***	5,612
Civilian prospect index	2.86 cd	4.90 a	3.51 bc	4.39 ab	5.12 a	2.0 d	20.59***	5,608

*** $p < .001$

Note. Means having different subscripts differ with significance levels ranging from $p < .05$ to $p < .001$ (Tukey's studentized range test)

MAKAM Vs MEDKABA

Two way ANOVA for MAKAM MOS with group (MAKAM,MEDKABA) and MOS (SSP, TSK, automotive maintenance) was conducted on the 2 civil prospects items and index. Main effects for groups was not obtained for the 2 items and the index. However, a significant interaction of group by MOS was obtained for the will to do the same job on the outside ($F(2.265)=3.08, p<0.05$). While MAKAM SSP (M=1.40) did not differ from MEDKABA SSP (M=1.42) and MAKAM automotive maintenance (M=2.07) did not differ from MEDKABA automotive maintenance, (M=2.10) a significant difference was observed between MAKAM TSK (M=1.87) and MEDKABA TSK (M=1.39): MAKAM soldiers in this MOS would like more than MEDKABA soldiers to do this job after they are discharged.

MAHVA Vs MEDKABA

Two way ANOVA for MAHVA MOS with group (MAHVA,MEDKABA) and MOS (SSP, drivers) was conducted on the 2 civil prospects items and index. Main effects for groups was obtained for will-to- do the same job on the outside $(F(1,186)=7.89, p<0.001)$ belief that MOS will help get a job on the outside $(F(1,189)=11.02, p<0.001)$ and the civilian prospects index $(F(1,186)=10.29, p<0.001)$. NO MOS by group interactions were found. Looking at the means, MAHVA soldiers would like more than MEDKABA soldiers to do the same job on the outside (Mmahva=1.95, Mhikaba=1.60) believe that their MOS will be of help in getting a job on the outside (Mmahva=2.22 Mhighkaba=1.83) and are higher (M=4.76 on the prospects index than MEDKABA soldiers (M=3.34).

LOW KABA Vs MEDKABA

Two way ANOVA for LOW KABA MOS with group (LOW KABA,MEDKABA) and MOS (SSP,drivers,automotive maintenance) was conducted on the 2 civilian prospects items and index. No Main effects for groups were obtained and no group by MOS interactions.

KABAG Vs OTHER GUARDS

No differences were found between KABAG guards and other guards.

DIFFERENCES BETWEEN DISADVANTAGED GROUPS

MAKAM v LOW KABA (SSP and automotive maintenance): No main effect for group was found -MAKAM soldiers do not differ in perception of civil prospects than LOW KABA soldiers in the same MOS.

MAHVA Vs LOW KABA (SSP and DRIVERS): NO group main effect or group

by MOS interactions were found - MAHVA and LOW KABA in the same MOS do not differ in their perception of civil prospects.

MAKAM v MAHVA (SSP): no main effect was found for groups on the civil prospects index between MAKAM and MAHVA SSP.

APPEMDIX L1: CIVILIAN ENVIRONMENT-MILITARY RELATIONS ITEMS AND DISTRIBUTIONS

37. **Did your father serve in the military?**

    1. yes   2. no   8. don't know   9. I don't have a father
     86   9   2   3

<u>answer the following 3 questions only if you have brothers over 18 years of age.</u>

38. **Did all your brothers draft?**   1. yes   2. no

                                 72   28

39. **Do you have brothers who got an early release?**   1. yes 2. no

                                         19   81

40. **Do you have brothers who have served or are currently serving in combat units?**

    1. yes   2. no
     37   62

41. **Do you have friends outside the military who did not or will not draft?**

1. all of them	2. most of them	3. few of them	5. none of them	9. I don't have friends outside the military
3	17	35	43	2

42. **What do members of your family think about the idea that you are serving in the military?**

9. I don't have a family	1
8. they don't have any opinion	3
1. all reject the idea	2
2. some reject and some support	14
3. all support	80

42. **What do your friends think about the idea that you are serving in the military?**

9. I don't have friends	2
8. they don't have any opinion	3
1. all reject the idea	5
2. some reject and some support	39
3. all support	51

APPENDIX L2: CIVILIAN ENVIRONMENT-MILIATRY RELATIONS - DIFFERENCES BETWEEN GROUPS

Results of a one way ANOVA of group on each of the civilian environment items are presented in Table 1.

Table 1
Means of civilian environment items by groups

	Makam	Kabag	Mahva	Low Kaba	Med Kaba	F	df
Father did not serve	.15 a	.08 ab	.15 a	.04 a	.07 ab	3.7***	4,624
Brothers not drafting	.46 a	.11 b	.27 b	.22 b	.23 b	6.5***	4,500
Brothers early discharge	.30 a	.07 b	.19 ab	.22 a	.14 ab	3.4**	4,493
Brothers not in combat units	.60 ab	.69 ab	.76 a	.54 b	.63 ab	2.2*	4,488
Friends not drafting	.36 a	.08 c	.20 bc	.22 b	.16 bc	6.2***	4,645
Family not supporting	.15	.23	.20	.18	.15	6.7***	4,645
Friends not supporting	.48	.39	.41	.54	.41	2.0*	4,627
Index 1~	2.24 a	1.66 b	2.21 ab	1.90 b	1.78 b	3.1***	4,648
Index 2 ~ ~	.29	.20	.25	.25	.20	2.4*	4,620

~ For soldiers with brothers
~ ~ For all soldiers
* *p* < .05   ** *p* < .01   *** *p* < .001
Note. Means having different subscripts differ with significance levels ranging from
    p < .05 to *p* < .001 (Tukey's studentized range test)

The results show that for soldiers with brothers, MAKAM civilian environment has the most negative relations with the IDF (although not differing significantly from MAHVA). The rest of the groups did not differ from each other.

Looking at the specific items, it can be seen that MAKAM soldiers had fewer brothers and friends who enlisted than all other groups. MAKAM also had the highest rates of brothers with an early discharge, although they differed significantly only from KABAG soldiers. It should be mentioned however, that they did not differ significantly from the other groups as far as friends and family's support for service is concerned.

Since separate ANOVA showed that family military background was unrelated to soldiers MOS, we did not proceed further with analysis of equivalent groups.

APPENDIX M1: PROBLEMS AT HOME ITEMS AND DISTRIBUTIONS

51.   **Do you have problems at home?**

1. yes, many	2. yes, a few	3. none
38	33	30

52.   **Does your father work?**

3. full time	2. part time	1. unemployed	9. I have no father
54	13	24	9

53.   **Does your mother work?**

3. full time	2. part time	1. unemployed	9. I have no mother
30	24	44	2

54.   **How would you define the economic situation of your family?**

5. very good	4. good	3. medium	2. bad	1. very bad
9	25	39	17	10

55.   **How many rooms there are in your residence?**

$\}$ mean crowding = 1.3 a room

57.   **How many people live in your residence?**

APPENDIX M2: PROBLEMS AT HOME - DIFFERENCES BETWEEN GROUPS

One way ANOVA of group on this problems index, for the whole sample, yielded a main effect ($F=(4,662)=10.68, p<.0001$) where MAKAM (M=-.35) MAHVA (M=-.18) and LOW KABA soldiers (M=-.10) reported a worse domestic situation than KABAG (M=.30) and MEDKABA (M=.20).

MAKAM Vs MEDKABA

Two way ANOVA for MAKAM MOS with group (MAKAM, MEDKABA) and MOS (SSP, TSK, automotive maintenance) was conducted on the problems at home index. Main effect was found for groups ($F(1,272)=16.46, p<0.001$). MAKAM soldiers (M=-.28) reported a worse domestic situation than MEDKABA soldiers in the same MOS (M=.20)

MAHVA Vs MEDKABA

Two way ANOVA for MAKAM MOS with group (MAHVA,MEDKABA) and MOS (SSP, drivers) was conducted on the problems at home index. Main effect was found for groups ($F(1,192)=6.52, p<0.01$). MAHVA soldiers (M=-.16) reported more problems at home than MEDKABA soldiers (M=.17).

LOWKABA Vs MEDKABA

Two way ANOVA for LOW KABA MOS with group (LOW KABA,MEDKABA) and MOS (SSP, drivers, automotive maintenance) was conducted on the problems at home index. No main effect was found for these groups.

KABAG Vs OTHER GUARDS

One way ANOVA for guards (KABAG ,other guards) was conducted on the problems at home index. No main effect was found.

DIFFERENCES BETWEEN DISADVANTAGED GROUPS

MAKAM v LOW KABA (SSP and automotive maintenance): No main effect for group was found -MAKAM soldiers do not differ in reporting problems at home from their LOW KABA counterparts.

MAHVA v LOW KABA (SSP and drivers): NO group main effect or group by MOS interactions were found.

MAKAM v MAHVA (SSP): no main effect was found for groups.

In summary, MAKAM and MAHVA soldiers differ from their MEDKABA counterparts in problems at home - they report a worse domestic situation than HIGH KABA soldiers. KABAG on the other hand, while not differing from other guards, do indeed report a better domestic situation relative to the rest of the sample. Finally, LOW KABA soldiers are in between- not significantly better than MAHVA and MAKAM counterparts on the one hand, and not significantly worse than MEDKABA on the other.